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THE

Addresses and Journal of Proceedings

OF THE

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SESSION OF THE YEAR 1881,

AT

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NOTICE.

The publication of the present volume has been delayed by the illness and death of William D. Henkle, Secretary of the Association. His last work was done on Friday, the 4th of November. He died on the 22d of November, 1881. At that time, 116 pages of the volume had been printed. Several of the principal officers of the Association, knowing that Mrs. Henkle had assisted her husband in the proof-reading of preceding volumes, requested her to complete the publication of this volume; and it has been done under her direction.

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GENERAL ASSOCIATION.

First Day's Proceedings.

MORNING SESSION.

The Twentieth Annual Meeting of the National Educational Association was opened in De Give's Opera House, at Atlanta, Georgia, at 9:30 A. M., Tuesday, July 19. 1881.

The President, the Hon. JAMES H. SMART, of Indianapolis, Indiana, called the Association to order and prayer was offered by the Rev. Dr. D. W. GWIN, of Atlanta. The President then introduced his Excellency, ALFRED H. COLQUITT, Governor of Georgia, who welcomed the Association in the following

ADDRESS.

LADIES AND GENTLEMEN OF THE CONVENTION:

With our whole hearts we greet and welcome you. We deem it a duty, a privilege, a pleasure, and an honor to receive as our guests men and women who are devoted to the highest interest of society. I shall not attempt to express to you our appreciation of you and your labors. If I could convey to you a complete sense of our esteem and of our admiration, indeed you would be prompted to believe that in this city and on Georgia soil the schoolmaster is at home, and nowhere else is his noble mission more honored. We welcome you because we recognize in you the most efficient conservators of the virtue, of the dignity, and of the liberties of mankind. Next to the mothers of our land there is to be found no such occupation or vantage ground for the elevation, the development, and refinement of the human race.

That English politician who elected the ballot-maker over the law-maker as a framer of the morals and of the elements of society, greatly missed in his choice the seat of power. Away from the mother's knee, and excepting the first lisping accents of praise and prayer from infant lips that are taught around the family altar, there is not to be found such power as is wielded by our educators in our seats of learning.

May I venture to express right here a word and an ardent wish. It is this: That these educators here and elsewhere may unite in a determined effort to harmonize the two great powers, religion and science—may endeavor to unite them as the old temple and Mt. Zion were united—unite the State and the school-house by one great strongly-buttressed arch. What is talent without moral principles?

What is learning without virtue? I rejoice to believe that these men and women by whom I am surrounded to-day, and who represent such a multitude of workers all over the land, that with you and among you we can find a solution of this question which unites virtue and religion and science and God and Christ.

Other governments and other powers may find some palliatives and some substitutes for education, but in this land we can find no such resources. Our republic, our union, is based for its safety on the education of the race. Upon our shoulders the government rests. I am well aware that oftentimes it is very plodding and very discouraging work among the teachers and educators of the land. They are not brought conspicuously before the multitude, but they move about here and there modestly in the execution of their duties; but they have this consolation, that they are building for themselves a name and a character and influence that will outlive the marble monuments that will be erected over the graves of those who seem to have been more honored, and when they have gone down to their graves, in cultured minds, in believing hearts and in trusting souls, all over the country will the memory of the modest teacher be preserved with gratitude and with tears.

Ladies and gentlemen, my wish is that heaven may inspire you in your present labors, and exalt the appreciation of all virtuous minds for you and for your work and for the dignity of your high vocation.

In the name of the people of this city and of this State—in the name of Christianity, whose banners of faith and love you bear—in the name of humanity, whose wrongs it is your noble mission to remove, in the name of the fathers and mothers and in the name of the children of the land whose fortunes and whose destiny you shape and mould, I greet and welcome you to-day. [Applause.]

RESPONSE OF THE PRESIDENT.

We have come to join hands with our brethren of the south to help us better to teach the millions who have been given us to teach. We intend to make them better men and women—truth-telling men and women if we can. So we are sure that we shall have not only the confidence but the help of the good people here. We invite you all to take part in the proceedings. We invite all the people of the State to join with us and take part in the proceedings. I am sure that when we go we shall leave behind us our best wishes for the good of the State, our wishes for its peace and plenty. We shall wish that all these beautiful hills and valleys shall be crowned with a happy and prosperous people, and therefore I have thought it best to deviate from our intended programme, and call upon two or three of our friends who are with us. I introduce to you Dr. WICKERSHAM, of Pennsylvania.

REMARKS OF THE HON. JAMES P. WICKERSHAM.

I know no reason why I should be called upon. I have listened with great pleasure to the welcome by the governor of the State, and I know that I say what we feel when I say that we are in accord with everything he said. I have been a member of this association since its organization in 1857, by a small body. Having been present then, and since, I must know something of its objects. And I wish to say here, that its motives are the purest. There is nothing political about it. We come for the sole purpose of making education universal. We wish to educate the ignorant, and make them good citizens of the State, and the republic. The government cannot live unless the people can be educated, and the sole object of this meeting is to promote the education of the people and spread the light of knowledge. Your State school Superintendent told us at Chautauqua that you wanted us to come here and say as much. I said: If that is the desire we will go down there and meet them, because there is nothing we desire more to have than to have a closer knowledge of each other. When objection was raised on account of our having possibly to pass through a city where yellow fever raged, I said: We will pass through two cities where there is yellow fever to meet the people of the south, and I think we shall have thirty of the States in this great union represented here. We come here knowing what public sentiment is at home, and I speak for the people at home and for ourselves when I say we come with our hearts in our hands, and there is nothing that we desire more than to meet you.

The President then introduced E. E. WHITE, of Lafayette, Indiana.

REMARKS OF THE HON. EMERSON E. WHITE.

Ladies and Gentlemen: It is now nearly ten years since by kind invitation I spoke an earnest word to you here on education, and I do so now with increased interest. I esteem it a great honor to be called on to add to the words that have been already said. We are glad that there is a platform so broad that all can meet on it without discord; can meet on it with one single purpose. In that we have been most heartily welcomed by the people of Georgia. It is as dear as human liberty. We meet here in the cause that knows no South, knows no North, knows no West, and knows no East. A cause that belts the globe and encompasses it wherever there is a human soul, and we meet, too, when the American people are realizing, as they have never realized before, that in education lies the foundation of all good government. The teacher is building the foundation on which our institutions rest. He is the foundation of all good government. We are realizing that the day of mere muscle is gone. Character is, after all, the sublime end. The putting into the generation that is to follow us the character that can be trusted anywhere, is the thing to be aimed at, and we are glad to be welcomed here in this great work.

The President then requested Dr. ELI T. TAPPAN, of Gambier, Ohio, to read for him the following

INAUGURAL ADDRESS.

At no time in our history has the attention of the general public been so persistently called to the subject of the education of children as now. Our system, *our methods* of work, and our results are being examined and criticized, not only by the most thoughtful men and women *in* the profession, but they are being examined and criticized by the most thoughtful men and women out of the profession. In the convention and on the platform, in the magazine and in the newspaper, the discussion is going on. And why should this not be so?

The best and the most valuable things we have are the children. The highest human interests are centered in their welfare; and the greatest earthly duty we have to perform is to see that they are properly reared and educated.

Our system is scarcely a system at all, our methods are not perfect, and our results are far from being satisfactory. They need examination and criticism, and so I welcome you, fellow-teachers, to this twentieth Annual Meeting of the National Educational Association.

The importance of the subject of the education of our children certainly justifies the ingathering of this intelligent body of men and women from the North and from the South, and from every part of this country, to discuss the multifarious questions which arise in the administration of our school affairs.

Let the discussion go on. Let friend and enemy have his say, and out of it all shall come a clearer perception of the purpose of the school, a better knowledge of methods and processes, and a higher appreciation of the results which are being obtained.

THE PURPOSE OF THE SCHOOL.

The public school is established for two great purposes, *one* is the personal well-being of those that are taught; and the other is the well-being of society. Or more accurately, the purpose of the school is to render freedom possible to the individual; *freedom in himself* and freedom *in society.*

VALUE OF THE SCHOOL TO THE INDIVIDUAL.

If we view a child without reference to his relation to others, we still find him under the reign of law. Law which man did not make, and which he cannot abrogate. He is subject to all the great laws that govern the physical *universe*; he is subject to all the great laws which govern the *moral* universe. His well-being depends upon a conformity to these physical and moral laws.

Perfect freedom comes *through perfect obedience* to these *perfect laws.* Perfect obedience to them necessitates accurate knowledge of them. Information, instruction, and education are necessary for this knowledge. Now the school comes in and imparts information; it instructs, in that it enables a child to build himself up. It gives him the tools and shows him how to use them; and inspires him with a love for learning.

It educates him, in that the processes of informing and instructing develop the faculties, train the will and the sensibilities, and cultivate right habits of thought and action. Of the value of knowledge for its *own* sake, of the personal freedom which comes to one through intelligence and through discipline, I shall not speak, except to say that every child born *into* the world has a right to this freedom. It is the purpose of his *being*, and that so far as the school is a necessity to this freedom, every child has a right to the school; and that in so far as the school imparts information, enlightens the understanding, and trains the will, and gives full play to right reason, it is an immeasurable power for good.

But man is a related being, he must necessarily constantly live in relations. He is part of a great whole, he cannot therefore live in selfish isolation. He rests under manifold duties to his fellows, and he is in constant need of their help. The practical art of life then is the art of combination. And while a child must be educated in such a way as to bring him into harmony with all the great moral and physical laws of the universe, he must also be educated in such a way as to enable him to bring himself into right relations with his fellows.

In this paper I have limited myself to a brief discussion of the Value of the School to the Community and to the State; or, in other words, the value of the school to the individual, as a member of society and as a citizen.

DIFFICULT TO MEASURE SPIRITUAL INFLUENCES.

In the outset I find it difficult to measure the extent, or the value of those influences that confessedly come from the school.

The farmer sows and cultivates, and in due time gathers his crop. It is a harvest that can be weighed, and measured, and precisely valued. The mechanic shows you a locomotive. He asks you to test its strength and estimate its value: and this you can do. So you can estimate the precise effect of opium and arsenic on the human system. Material can be measured, physical forces can be estimated, but when you pass into the realm of mind you are in difficulty. There are no instruments with which to measure the power of a spiritual impulse.

Ask the preacher to tell you the power of his words and he cannot do it. A word may cause a tear, but the tear is not all. Thus there are some things which you can weigh, and measure, and balance, but you can show me no system of weights or measures by which you can determine the value of those influences that affect the human mind and the human heart. There is no rule by which you can measure the power of truth. Plant a truth in the mind of a child and estimate the crop if you can.

Now the school is a spiritual influence, hence it is difficult to estimate its value. Some of the immediate advantages of the school to the individual, as such, may possibly be seen and felt. But the influence of the school passes from one to another, descends from father to son, reaches out into all the future, and its power passes beyond the range of human computation. The difficulty is complicated when we remember that the school is but *one* of *many* educating influences.

Among these are the education of society, the education of the home, the education of the school, and the education of vocation. These educational forces and the school are so interrelated that it is impossible to estimate the relative value of each of them.

We find it then a difficult thing to estimate the precise value of the school. All that is possible to do is to observe the *direction* of its influence. If the tendency be upward and toward the light, and into the truth, then the school is an immeasurable good.

I now proceed to speak of several particulars in which the school exerts an influence upon some of the more important interests of society.

FIRST.—*The relation of the school to business.*

The practical problem of life is a problem of combination, the church is a combination. Society and the State are combinations.

There is another combination which is of the greatest importance. It is the combination which grows out of man's physical necessities. Men spend the larger part of their time in combining with their fellows for gain or profit. They combine in their various vocations and organize great systems of exchange. Now the school has a very important relation to this combination.

We all see that the school teaches the child to count, and to cast interest; and that it gives him a knowledge which is of great service to him. But let us see if it does not do more than this. I use but one illustration. Of all good business habits, the chief is the habit of promptitude. The voluntary performance of a duty, the fulfilment of an obligation, or the payment of a debt, may depend somewhat upon a principle, but they depend quite as much upon a habit; and the mischief is that when bad habit and good principle come in conflict, bad habit often wins the victory.

Of all the vices possessed by business men, the greatest is the postponement of duty, or the disregard of their obligations with respect to time. A careful study of the history of criminals, especially of thieves and defaulters, will show that the first step in the downward course was the disregard of an obligation in respect to the time of its fulfilment.

Behind time in the smaller affairs of life, then in the more important. Behind time at school, then in the keeping of an engagement, and in the payment of a debt. First a simple neglect of duty, then how quickly comes a failure which is equal to a crime. We all know how this process blunts the moral perceptions, and how easy it is to take a plunge to the bottom. I could enumerate a score of recent illustrations in which the first step taken by a defaulter, was in failing to pay money borrowed from the safe of the company back on time. There was no intention at first of theft, but first a day, then a week, then a great defalcation.

"How does the school affect this?"

Punctuality is a habit, and punctuality is the law of the school. The scholar must attend on time; he must be prepared with his recitation on time, he must perform a great variety of duties on time, and thus a habit is formed. It is a habit which has an important bearing upon every phase of life in which men come into social or commercial relations. If the school did nothing beside enforcing the habit of promptitude in the performance of duty, it would be worth far more than it costs.

SECOND.—*The relation of the school to public order.*

One element in good citizenship is respect for law and authority. *That obedience* to law, and subjection to authority which comes through fear, is not consistent with good citizenship. It is that sort of obedience that comes from *respect* for law and authority, that tends to produce good citizenship. Under a form of government the central idea of which is absolutism, good order is chiefly maintained by force and through fear. We observe also under such governments, that whatever of respect there is for the law itself, comes not so much from its character, as from the flavor of age there is about it. There is a sanctity about those things that had their beginnings in former times, and laws which are mere matters of precedent, are far stronger than the statutes themselves.

Our government originated in a revolution, not in the revolution of the Eight Years' War with the mother-country, but in a previous revolution, a revolution of thought.

The Declaration of Independence and the war were the effects of that revolution. That revolution was a protest against old ideas. It was a revolt against the power of precedent, and traditions and long-continued customs. It was a demand for freedom of thought. The Pilgrim Fathers commenced their revolution when they set their faces toward the New World, and this revolution of ideas has been going on ever since.

The marvellous physical progress which we see about us is equalled by the progressive thought of our time. The constant change in the thought produces a constant change in the laws. Laws which governed us yesterday are forgotten to-day—and those that govern us to-day may be obsolete to-morrow. All this is possibly necessary from existing conditions, but what is the effect of it all? Does it produce a respect for law and authority? A law that is not good enough to be kept on the statute books more than two years will hardly command respect. We may obey it, but we shall not be liable to respect it.

Furthermore frequent change in law produces a restless desire for change. The restlessness which comes from dissatisfaction of law is the seed of revolution.

Where do we find then the conserving force? Not in customs, not in traditions, not in the flavor of age; nor indeed in the character of the laws themselves, nor in the ease and facility with which they can be changed. It does not grow out of man's knowledge or of man's experience.

We find the conserving force chiefly in the power of habit. This habit is formed and set at a very early age; and it is to the School that we must credit the influence which produces it. Here the child is brought under the power of authority, and into varied relationships with his fellows. He is taught to live under this authority, and *in* these relationships. He thus forms a habit of obedience to those laws and a respect for that authority, which grows out of the varied relationships of life.

Let it be remembered also that the method of the school, is not the method of physical force. It is the method that produces a habit of self-control. It is not alone the individual power of the teacher exerted on the individual child; but it is the intensified and increased power that we find in individuals moved in masses. Hence, it is a power that cannot be produced by private tutorage, nor in the family. It is the peculiar power of the school.

What is the value of this self-control?

We find that men need something besides knowledge and scholarship. We see that they need the power to bring themselves up to duty when they see what duty is. We see that they need power to refrain from doing wrong when they see what is wrong. The chief trouble with men is not that they do wrong in ignorance, but that they do wrong in the light. They are bound by the force of habit.

Men need knowledge, but they need power also—that highest and best power, the power of self-control—that power which makes a man "greater than he that taketh a city."

THIRD.—*One relation of the school to communism.*

There is another effect produced by the school on the community, which has a most important bearing on public order and good citizenship. The spirit of communism is a natural one. It is one of the most reasonable things in the world for a poor man to demand a division of property. The average poor man at 45, can hardly hope to improve his condition financially or socially without a division. Viewing himself alone he has but little hope.

The greatest preserving power in the world is hope. Take hope from a man and you do what you can to make a bad father, a bad neighbor, and a bad citizen of him. But has he no hope, has he no ambition? He sees that it is not wealth that rules, but that it is intelligence that rules. He sees the children of the poor entering the door of the public school, and that there they have equal advantages with the proudest and the best. He sees that by reason of the public school, which he could not maintain himself, the humblest have a chance to climb up. He looks around him and sees that they are climbing up, climbing up in every direction of life. It is a matter of common observation. It is borne in upon him that his children may have a chance, and that he may secure a precious legacy for them. Hope and ambition are revived. The grass looks greener, and the skies are bluer; and he looks up and thanks God and toils on a cheerful happy man and a good citizen.

Say what you will the children exercise the most potent influences.

Now introduce our poor man into another system, a system in which there is no public school, a system in which the wealthy may be educated, and the poor remain in ignorance—a system in which there is an aristocracy of wealth and of intelligence—a system in which some are born to wealth and education, and others are born to poverty and ignorance—a system of caste, in which men born upon the lower plane must there remain, they and their children, with hope dead, with ambition crushed.

What do you do for him? Well, you do what you can to make a communist of him. The free public school does more in my judgment to suppress the latent flame of communism than all other agencies combined. It is a far better protection to life and property than laws with terrible penalties, backed by soldiers, armed with shot and shell.

FOURTH.—*One relation of the school to national unity.*

A hundred years ago we went to house-keeping on our own account. We invited the whole world to come over and join us; and twenty millions did come, and we had to make room for them. So we extended our boundaries down across the sunny south to the Gulf, and beyond the Mississippi, and over the mountains to the Pacific.

Our doors were thrown wide open and in came the Celt, the Gaul, the *Teuton,* and the Oriental. Millions of Irish, millions of Germans; and millions of others, all differing in language, in social customs, and in ideas of government. All to participate in the blessings of civil liberty. All to take a responsible share in the duty of creating and maintaining a great free republic. Was ever experiment more hazardous, was ever task more difficult?

One of the great barriers to unity of purpose, and unity of action among people is diversity of language. Traditions are preserved in language, and manners and customs are modified only when men speak to each other face to face.

All the great conquerors of the world have understood this. Cæsar understood it. The recent decree of the German Emperor, in forcing the German language on the people of Alsace and Lorraine, is evidence that Kings now understand it. If a unity of language is desirable in a monarchical system, how necessary it becomes under a republican system.

How is this great barrier to National unity to be broken down?

The first thing that those who came to us across the sea had to do was to provide a habitable home. What tremendous physical energy it has taken to drive the Indians to the Lava Beds and across the border; to clear the forest and to open up the soil; to bridge the rivers dig the canals, and build the railroads; and to dot this vast country all over with village, town, and city.

During this tremendous physical development the schoolmaster took the children and led them to the school-house; and then the modifying, fusing process began. He gave the child a common language, and the language of the child eventually became the language of the father and of the household.

If the child did not become master in this respect, the grand-child did, and thus it was that members of many families became members of one great commonwealth, and the Teutons and Celts were Teutons 'and Celts no longer, but became Americans.

It is a singular fact that we have no dialects in this country, vast as it is in area, filled as it is with so many nationalities; we practically speak but one language. It is also a singular fact that within six hours of London we may find people who cannot readily understand those who live 200 miles away.

Is it age that produces unity of language? England is very old. Is it ease and facility of communication? England is compact and small in area, and its railroads, its postal and telegraphic systems are unrivalled. Is it a common Bible? England has a state religion an authorized version. Is it the newspaper? England is full of newspapers.

What then is the solution? It is certainly found in none of these. The explanation is this. America has its great free public-school system. England is without such a system.

The best thing about our schools is that they are common schools, and bestow a common blessing upon us all. I believe that the American school-room is the place in which that wonderful change takes place, by which the children of every land and of every tongue, of every religious creed, and of every political faith, are transformed by subtile assimilating processes, from aliens and strangers, into a sympathetic membership in the greatest and best political organization the world has ever seen. The morning bells welcome seven millions of these children to our school-rooms. They enter with a confusion of tongues, they emerge with a common medium of communication, and with the ability to read the same Bible and the same civil laws.

They enter with a dissimilarity of customs and manners, they emerge tolerant in spirit, each fitted to combine with his neighbor for mutual advantage, and for the common good.

They enter with differing ideas of political economy, they emerge willing to be governed by one law, respecting one constitution, and loving one flag.

C. C. Rounds, Principal of the Normal School at Farmington, Maine, then read the following paper on

LINES OF ADVANCE.

One engaged in the thick of the contest or the fatigues of the march knows but little of how the battle fares; we can not see the grass grow, nor the buds open, nor the fruit redden on the tree; but it is found that a nation's fate is involved in the turn of the battle, that the campaign steadily advances to a definite end, that the seasons move on through the circuit of the year. So, amid the cares of the school-room we can not always discern the tendency of our work, and in our anxiety about many things we often lose even the limited vision that we might have, and fight as those that beat the air. Hence come wasted efforts, discouragement, loss of heart and hope, and sometimes despair.

Yet when we look over the educational field we find that there *is* progress; that while many efforts have been wasted, while many experiments have failed, on certain lines the advance has been sure, and that this advance has often seemed utterly disproportionate to the effort put forth. Hence it must be true that in education as in mechanics there are lines of least resistance; that the spiritual forces at work for the elevation of the race work by law, and that he who knows these lines and these laws knows the direction for profitable effort. To call attention to indications and proofs, in educational history and in public opinion, of lines of most necessary and most immediately profitable work, is the design of this paper.

Slowly but surely teaching is assuming a more definite professional character. The remarkable increase in the number of Normal Schools, especially within the last few years, the recent establishment of summer Normal Schools of Natural History, Art, and Language, and the change of teachers' institutes from the old-time teachers' conventions called by that name to real short-term Schools for professional training, strongly mark this professional tendency. Still more encouraging than the increase in the number of Normal Schools has been the advance in the prominence given, in their courses of study, to training in principles and methods of *teaching.* Much remains to do, it may even be said that comparatively little has yet been done, but the tendency is clear and strong. Theoretically, the ground has been won that *the teacher should be trained.*

The first attempts at distinctively-professional training for teachers were made in behalf of teachers of the Common School; but ere long the advantages of this training became so apparent that they were sought by teachers in higher grades; advanced courses of instruction were established, and at length the tide has reached the colleges and universities in the establishment of professorships of pedagogy, like those in the Universities of Michigan and Missouri. The East moves slowly. Probably a majority of its college faculties, although the education of teachers is so large a part of their work, would to-day deny the need of professional training, and even the existence of any science of pedagogy. A few years since this denial was made before a State Teachers' Association by the President of one of our Eastern Universities. During the past winter a course of lectures on pedagogy, under the auspices of this University, and bearing the University name, was delivered in the neighboring city by a member of the faculty. In various Colleges Normal Departments are now maintained. At Wellesley College, one of the few best organized and endowed female colleges in the land, a magnificent hall, the gift of a noble woman, has recently been erected for the exclusive use of those pursuing the Teachers' Course of Study, and a few months since the Principals of the Normal Schools of New England were called into council with the trustees of this college in regard to the organization of its Normal Course —the first council of the kind, let us hope not the last. These changes of opinion are significant of much greater changes in the public mind, and give ground for hope that the revolution will progress to entire unanimity.

All logical truth must some time become actual fact, but to earnest workers the "eternal years of God" do sometimes seem very long. Once grant that the teacher should have special professional training, and the conclusion is inevitable that this truth should be recognized in the employment of teachers. It is cause of great encouragement that some States already acknowledge this by recognizing in their laws the validity of professional diplomas and certificates.

The tendency of teaching to assume a more distinctively professional character is indicated again by the character of its Associations. This Association is strong evidence of professional feeling among teachers themselves. Yet the General Association is not evidence strong enough, and hence the National Normal Association is a necessity. For years this has lived a vigorous life, and the publication of its papers and discussions in a separate volume would greatly honor the profession. The New-England States have also for several years sustained a New-England Normal Association.

State Teachers' Associations have been really Teachers' Conventions with easy terms of membership. My own State of Maine, I believe, deserves the credit, in the formation of its State Pedagogical Society, of first demanding a clearly-defined professional standing as a condition of membership, and in bidding good-bye to the old-time loosely-organized

Association. This movement began seven years ago, and for two years its State Pedagogical Society has been in successful operation.

And this year, for the first time, the National Council of Education meets to consider matters of high import to the profession, to attempt to concentrate, to organize, to guide the educational efforts of the teaching forces of our widely-extended country to more definite ends.

Comparing the schools of the past with those of the present, we see an advance in methods of teaching from dogmatism to development, from verbalism to realities, from cram to thought. The most marked examples of this change will thus far be found in the modern primary school. When compared with the primary school of a generation ago, similarity disappears, we have a new creation.

The rational methods of the primary school also appear in courses of study in chemical, physical, and biological science. Grammar and High School and general College work are undergoing a gradual transformation by these influences from above and below, and advance in popular educational thought is shown by increasing dissatisfaction with unphilosophical methods.

These results are by no means universally apparent; the good fruit appears in the most fertile fields, and there are still immense tracts given over to the same old weeds and brambles: but the student of the signs of the times may take courage, and looking back over the last quarter of a century may see a line of distinct advance, a line which becomes ever broader and clearer as it comes down to our time.

Confidence in the surety of this advance is increased by a consideration of its causes. Whether or not advance be possible in metaphysics, there has surely been advance in our knowledge of the nature of the soul and of its laws, of its dignity and worth in a general and not in a special theological sense; in clearer ideas of the powers latent in the undeveloped soul and of the potency of education in shaping individual and national destiny. This advance appears also in a generally-heightened sense of the sacredness of childhood and of its rights, as is shown in gentler modes of family discipline, in legislation for the protection of the child from oppression by parents and others, and for the guarding of his right to an education by laws compelling school attendance and by the establishment of schools like the State Public School of Michigan and the State Primary School of Massachusetts for children whom other laws do not reach, in the better administration of orphan asylums, and lately in the care taken in our cities, in many ways, to secure the happiness of children by giving change of scene and air to those who most need it, and in efforts to bring into the home and school of the poorest those influences which refine rudeness of manners and soften hardness of heart. All these influences tend to a closer and more critical study of the soul, and all such study tends to bring modes of teaching to a standard of truth.

The increasing reverence for the works of Nature which comes from a truer comprehension of them, is a powerful influence in making prominent those subjects of study which are best fitted for the development of the mind of childhood and youth, and the study of which leads most directly to, indeed compels, rational methods of instruction.

The historical causes of the reform in education are equally conclusive as to its permanence. The new influence which Christianity introduced has never been adequately treated. An English scholar has prepared an edition of Meno as a study in pedagogy. What has been done for Plato who will do for Christ, the first great objective teacher, in whose method lay the germ of all subsequent advance in moral and intellectual no less than in religious teaching? Before him the soul of the child lay open as never to any other, and education would have been transformed centuries ago had His words been comprehended and heeded. To mention some of the leading names connected with the advance in methods of teaching in modern times—Bacon, Comenius, Locke, Pestalozzi, Froebel, Faraday, Agassiz—is to prove the soundness of the methods and to give assurance of the progressive and cumulative power of the work in which they bore so conspicuous a part.

Most of us can remember when it was held that the true course of study was known; that in the ancient classics and abstract mathematics we had the universal means of culture. A very little of physical science might be tolerated, so little that it could do no good, and no harm except that which comes from mistaking ignorance for knowledge. Of literatures other than those of Greece and Rome, even of the noble literature of our own English speech, no account was made. Fortunately for those who are still young this battle has been fought out with the happy result of a union of forces, a larger development of divine ideas in the human soul, an immense increase in the sum of trained spiritual forces brought to bear upon the problem of life, in making the garnered results of human wisdom more than ever before "a rich storehouse for the glory of the Creator and the relief of man's estate." The whole world of knowledge lies before us "where to choose," and we need to remember that while the field of knowledge is so vast public industrial education is one of rapidly-increasing strength, and one of the most important problems before us in the immediate future is to fix its proper place and function in a system of public education.

A marked feature of our recent educational history has been the extension of female education. Most of us can remember when the privileges of free higher education were almost exclusively for males. Only a generation ago it was proposed to open the door of the High School to girls, but even this concession came hard and slow, and often at first as a separate school, to be in most cases afterwards blended with the boy's high school. The tide soon rose higher. The demand was made that the privileges of college education be granted to both sexes on equal terms. There was much lecturing of woman on *her sphere* by learned men, and much foreboding of the dire results to follow if ladies and gentlemen should recite in science and classics in the same class-rooms and follow the same college walks. Results have proved that the demand was not a whim but an inspiration. While the established colleges have in most cases held back, female colleges, magnificently endowed and furnished, have risen to challenge competition with the male colleges, and many of these latter have opened their doors to both sexes on equal terms. The question of the higher education of woman is still in its transition phase.

There are doubtless advantages of a certain kind in the separate education of young men and young women. As their work in life is necessarily different in many respects, it is but reasonable that the Schools from which they are to pass into life should regard this difference. But there is danger of exaggerating the differences, and neglecting to consider the much larger number of resemblances. The American man and woman of this afternoon of the 19th century walk side by side. They follow essentially the same lines of thought, they are alike citizens of the republic, and are working out essentially the same problems. Through many years the colleges and universities of the land have been accumulating the means of instruction, and have been laboriously adapting themselves to the demands of the time and the slowly-revealed aim and purpose of American civilization, and securing a better and better adjustment between the theoretical and the practical in culture. But a changed spirit has come over us. The great currents of the world's life and thought flow stronger than ever before, and in channels deeper and broader because they are fed by thousands more of rills from all the households of the land. Every house is still in the ancient phrase its owner's castle, but not in the sense of the mediæval robber days, the sense of high walls, and moat, and drawbridge. The castle—castle in the sense of legal right and protection against intrusion of the oppressor—now stands in the city streets, and grouped in villages, and on the open country highway. In the movement toward individualism something will inevitably be lost, and men's hearts fail them for fear when passing from the familiar to the unknown and larger good. In this movement woman has stepped out from the house-door—she has not left the home—and now looks upon the world and its busy life with the clear, calm vision of one who has a stake in the game that is played and who knows how to play it, and no longer with the dazed and timid look of one lost and astray. The girl has entered in a large degree upon the life of her brother, and demands a similar preparation. Shall she not have the same means? On the systems, largely elective, which now prevail, it would seem that the differing wants of the sexes as well as individual peculiarities can be met. And what, on this line, is the truest advance? We have all the types. In the free life of the West the mixed college seems to prevail. In the more conservative East all phases of the experiment are in progress side by side. Wellesley and Mt. Holyoke, exclusive as to students and faculty, Vassar and Smith Colleges with exclusively female students and mixed faculty, the coqueting with the question in the Harvard annex, and the broad and free organization of our newest, the Boston University, with its doors open to both sexes on equal terms, and both sexes represented in its professional chairs—which shall prevail? All honor to those who have given of their life and their wealth to the work as they understand it. The essential demand is that woman be educated. In all these ways she *is* educated. But *genius* in teaching is a gift of God, and it can not be God's will that its benefits should be restricted by any limitation of sex. For many years we had but one Agassiz, and to him we owe the development of enthusiasm in this country in the study of Natural History. But the *inspiration of his teaching* was almost entirely confined to young men, and it was not until near the close of his noble life, when a generation of earnest workers had been trained by him, that the blessing was extended to women. Can this deprivation for so many years, be charged to anything but prejudice or ignorance? Is it not indicated that bye and bye, when all the conditions of the question are clearly discussed, it will be decided in favor of co-education so far as wants are alike and electives so far as they differ?

Not only have distinctions of sex as regards education been effaced, but at length distinctions of race have also disappeared. One of the most encouraging aspects of the educational question in our country is the hearty unanimity with which religious and philanthropic organizations, municipalities, States, and the National Government, have joined in the effort to elevate to the rank of intelligent freemen the race so long kept in slavery, and the good results which have attended this effort.

And lately—why so late?—the nation has come to see that it is better to educate than to outrage and kill; has resolved that it will rule in righteousness rather than be ruled by the Indian Ring and participate in its atrocities. The effort of the government to educate Indian youth at Carlisle and Hampton, and to encourage and sustain other efforts in the same direction, already yield most gratifying results, and give promise of much better results in the future.

Instead of being the privilege of the few, education has come to be recognized as a necessity, as the right of all; no longer restricted to a narrow line of subjects, it gathers its material from all fields of literature, art, science, and industry. With a field so vast, with such infinite possibilities before us, God grant that our strength may not fail, and that support be not lacking. What support must we have? Such a work is beyond the power of the individual.

No people has ever yet been educated by private effort alone. A work of such magnitude demands national encouragement and support. Washington, Jefferson, Madison, Adams, Franklin,—in fact the whole line of the fathers of our government might be quoted in defence of the principle of national education. Jefferson's views are expressed in a bill prepared by him for the legislature of Virginia, providing for a system of common schools, for ten colleges, and for one State University; by his labors in the establishment of the University of Virginia; and by the noble 8th article of the constitution of Maine, written by him.

Madison, defending the support by the State of a complete system of schools, from primary school to university, on the ground of the public good, says, "A popular government, without popular information or the means of acquiring it, is a farce or a tragedy or both. Knowledge will govern ignorance, and a people who mean to be their own governors must arm themselves with the power which knowledge gives."

John Adams says: "The instruction of the people in every kind of knowledge that can be of use to them in the practice of their moral duties as men, citizens, and Christians, and of their political and civil duties as members of society and freemen, ought to be the care of the public, and of all who have any share in the conduct of its affairs."

In these latter *days new men* have arisen with new but not sounder views—men assuming to have reduced all social and political economy to principles as simple and processes as deductive as astronomy or the calculus; men dwelling apart in a region of cold abstractions, to whom the successive generations of mankind are as grasshoppers, to whom it is matter of profound indifference whether or not the child of to-day walk darkling or in the illumination of truth, because, forsooth, according to *their* assumptions and conclusions, somewhere in the eternities men will reform themselves, and educate themselves, and humanity, by unanimous spontaneity, will start the golden age.

Other enemies, also, arise. The sectarian sometimes cries out upon the public school as a godless school, and declares that to the church alone belongs the work of education. The graduate of High School or college is not a Porson, nor a Humboldt, nor an Admirable Crichton, and not every one can complete these courses. "The free High School is a failure," cries the politician; "the State has a right to educate only for citizenship, therefore only the elements, the three R's, should be taught at public expense,"—tremendous conclusion from such an assumption.

Hooker saith truly, "Much learning maketh a man either excellently wise or excellently foolish." Deep down in the heart of the common people is a belief in the free school, in the inherent right, in the imperative duty of the State to educate. The people hold with the wisdom of the fathers who believed that popular education is essential to the national life; with the wisdom of the present day which sees in the State not merely a police, but an institution whose legitimate function it is, by organized effort and at the public expense, to attain to ends necessary to the public good, but beyond the reach of individual effort. In every stable government that has existed among men, the rulers at least have been educated up to the standard of their time. Some forms of civilization and of government may subsist if merely a class be educated, but not such a form as ours. In the republic the ballot is mightier than the bullet. The people as the source of all political power, are themselves the rulers, and hence must be educated. How far? To fit for citizenship. What is involved in this? Not merely the passive endurance which fits one to obey, but the developed faculty which fits one to rule. No one can wisely choose an agent unless he knows something of the character of the duties to be performed. The citizen, in order wisely to choose his legislator, his judge, his officer of the law, must have himself some fitness to legislate, to judge, to execute. By popular election public place is open before all, and the public good is periled in proportion as it becomes possible for the unfit to attain to political honors, and is advanced as more are qualified to perform public duties. At all stages in his career, the citizen's relations to the State and to society are more numerous and complicated than his purely-private relations, and these relations are becoming more complicated every day. The savage needs no training but such as nature and personal experience gives to fit him for the performance of his simple functions. With social and political organization comes differentiation of function; man becomes a fraction and dependent upon society, and society becomes one mighty man. The State becomes something more than a political machine. Left to his own unaided effort, man, as citizen of the culture State, can not become participant in the intellectual achievements of the race, he is slave not "heir of all the ages;" as citizen of the jural State, he is the victim of laws which he can not comprehend, and is crushed by political forces which he has not intellect enough to control; as citizens of the industrial State, in an age characterized beyond all others as an age of inventions calculated to subject physical forces to the will of man and to lighten human toil, he remains a pauper in the midst of plenty, a serf in the land of freemen. In his case Francis Galton's statement becomes literally true, that the intellect of the present day is not equal to the problems presented to it.

The principle of national support of popular education, in such a land as ours, has life in itself, and among our people a belief in this principle grows stronger and clearer from year to year. That it is in strict accord with the spirit of our national life appears from the fact that those portions of the country are most happy and prosperous where it is most fully recognized. Growing stronger in the public heart, conscience, and reason, it appears in public legislation in the establishment and support of the National Bureau of Education, in grants of public money to advance knowledge of science and of public lands for Schools of Agriculture and the Mechanic Arts, and in the increasing advocacy of bills to set apart all the public lands as a national fund for the education of the people. The *principle* seems secure, and public opinion, properly guided and taught, will be able to defend public and free education from the assault of the sectarian, the *doctrinaire*, and the demagogue.

Thus I have endeavored to present the main lines for immediate and most profitable effort, lines already carried, but which vigilance alone can hold. The work begun we must complete. We must ground our work upon more definitely established principles; we must give it a better scientific form; we must guard the rights of all to share its blessings, and wisely select material from the immense field before us; and we must more firmly establish and more clearly determine the educational right and function of the State.

By my observations in my long journey to this place, through States which I had never traversed before, the immensity of the American educators' work has been borne in upon me with an oppressive weight. The duty is urgent, the field is vast, the work of a century needs to be done in a year. May our duty be so done that in the future glories of the American name we may have our share, and that for its disasters, if disasters come upon it, we may not be held responsible.

After announcements as to memberships, etc., had been made by the President and Secretary, the Association took a short recess. After re-assembling ANDREW J. RICKOFF, Superintendent of Instruction in the Public Schools of Cleveland, Ohio, read the following paper on

THE COMMON-SCHOOL STUDIES.

We are told that an English dry-goods firm once sent out instructions to its agent in China to observe the street costumes of well-dressed Chinamen of different classes, to buy the clothes off their backs and to send these at once to England. From these samples, it could produce goods of the very sort the Chinese wanted. In other cases the traditional costumes of European peasants were procured and imitated by English firms with great success. Thus the manufacturers of England adapted their products to the demand of foreign countries.

If now we teachers were to make it our business to look beyond the conventional demand of the market for which we are leading and training the little children under our care, and were to analyze minutely and conscientiously, the knowledge and discipline of the best classes of grown-up men and women,—the mental and moral habiliments, if you please, of well-informed and intelligent people of different vocations in life—and if we were then to address ourselves, not to the supply of a market the demands of which are determined by the ignorant masses rather than the intelligent, but, to meet the real needs of a people, there can be little doubt that the curriculum of our common schools would be greatly changed for the better. Much now taught would be cast aside as of little value, or as absolutely worthless, and its place would be supplied with the elements (the first circles) of studies which now scarcely appear in the programme.

But let me be more specific. If the schoolmaster, or rather the true educator of the race, were to send a commission to its workshops, its farms, its churches, its political and religious conventions, its teachers' desks, and its editorial rooms to make diligent inquiry of the men and women to be found there, as to how much of the knowledge acquired in the elementary schools is common to a majority of them,—I mean a majority of the most intelligent, the very leaders in the several classes—and if this commission were to make careful observation of every remaining trace of the intellectual and moral discipline of the schools, to be found in the modes of reasoning and styles of expression used by those whom they met in the course of their inquiries; and if, when this investigation had been completed, the commission were to set itself about the elimination of everything in the present course of common-school instruction, which had been found to have been neglected and utterly forgotten, as of least worth, by a great majority of the most intelligent workmen, tradesmen, and members of the learned professions, how much do you think would remain of all that is so laboriously taught and painfully learned in the schools of the day?

Suppose that when room had been made, in our course of study, by throwing out that which had been found to be comparatively valueless, this commission should substitute therefor, more ample provisions for instruction in those subjects, which in the progress of their inquiries, they had found to have been studied at school and to have been extended by the great majority, beyond school life, into the self-directive years of manhood and womanhood; and, further, if the commission were to add to this curriculum the study of the agencies, the mere machinery, through which town, county, State, and national government are administered, a few of the more palpable and important principles of political economy, and still further, if it were to add an introduction at least to the great English and American authors, whom to know well is itself an education, and whom it is a disgrace not to know, whose productions are the richest inheritance of our race, or, to sum up in more general terms, if we were to subject the common course of instruction in our common district and graded schools to a thorough revision, rigorously excluding all that is consciously and unconsciously neglected as valueless by intelligent men and women, as soon as they become free to judge and act for themselves, and substituting those things to which every young man and young woman who is ambitious to become a worthy factor in the affairs of the community, the State, or the nation is forced to give earnest attention, as soon as he emerges from the school; if, in a word we were to "prove all things and hold fast *only* that which is *good*, we should perform the highest service to the cause of common-school education which it is possible for any association to perform. If we should but boldly blaze the line of progress, though we left the road ungraded and full of obstacles, we should inaugurate a new era in education. Better methods of instruction came to our aid a short while ago, but the reformers only showed *how* we might better do, what we had been trying to do before, not what we *ought* to *try* to do.

But to suggest merely the appointment of a commission to investigate this subject is to leave it at a point as unsatisfactory to you as to me.

Let us speculate for a moment as to what this commission would find in the present course of study that might be thrown out as of little worth. What, for instance, would be the result of an inquiry among the more intelligent tradesmen and members of the professions as to the knowledge of geography which they have retained or accumulated, we will say, at from 35 to 50 years of age? I do not speak of that alone which they learned in childhood, but of the sum total of all the knowledge they may claim at the time of the inquiry. I think it would be found that they know *very* little as compared with the 14- or 15-year old miss who has just passed her examination for the High School in any one of our towns or cities, except as to those points which they have in later years looked up for purposes of business or pleasure. Not having any relation to the course of reading or business pursuits of maturer years, the names and locations of rivers, mountains, lakes, cities, capes, nations, etc., etc., drop from the memory of most men as the features of people who pass us in a rapidly-moving procession. The study, having served its purpose in the recitation-room, and on examination-day, is promptly dismissed from the mind.

Test the value of a study thus pursued by any standard you please and it is valueless, except as to its general outlines which can be learned in one-third of the time now allotted to it. As studied it contributes little to our store of useful information and still less to discipline of mind, inasmuch as it begets a habit of careless indifference to what we have learned.

There is only one possible good which the study of such a multiplicity of details can serve. The persistent effort to store them in memory, even for temporary use, puts the faculty of attention under the control of the will. But if that is the only advantage we expect to obtain from it, the names and the infinitely-varying characteristics of the objects which are all about us in the natural world, and in the world of art and industry, would serve the purpose still better. Take English grammar. Its utility in training us to speak our language with correctness and precision is claimed by very few of those who advocate its retention in all its magnificent proportions in the curriculum of the Elementary Schools. Its claims rest mainly on its assumed value as a disciplinary study, but I am willing to concede little in its favor which I would not concede to geography. As to the training of judgment and reason, which is claimed as its chief excellence, I must say that I have no very high respect for it. Taught at an age when the power of abstract reason is yet very feeble, the supposed exercise of reason is likely to be only an exertion of the verbal memory. At this period of life the interest which may seem to be excited in this study, is only a fear of reproof or the laudable ambition to stand well in class. That it is beyond the capacity of children in our Elementary Schools is now allowed by most authorities on the subject. If these conclusions be true, the deduction is inevitable that the study is not only useless but pernicious—pernicious not alone because it displaces the studies which would be of far greater practical utility, but because of the mistaken notion of the true nature of a process of reasoning which it begets in the mind of the average child. Premises being given, and a conclusion derived by a false process, or by a process which is not understood, the integrity of the reason is violated, confidence in its operations impaired, and the faculty itself permanently weakened, instead of being strengthened. I have no hesitation, therefore, in rejecting grammar, the greatest part of it, from the list of common-school studies.

But what of arithmetic? I answer with some reluctance because I know how strongly fortified this subject is, in the minds of the people. For illustration I might say that an amendment of the catechism has been proposed by a gentleman in the part of the State of Ohio from which I come. In answer to the question, "What is the chief end of man," he would reply "To glorify God and study arithmetic forever." Within a few years past, say the last thirty or forty, far more attention has been given it than it deserves. We do not teach it too well, not well enough as to its elements, but we attempt to teach too much of it. We teach more in the schools than is necessary in the counting-house. I am told by the gentleman above referred to, that, having occasion to draw a note which should realize a certain sum when discounted at the bank, he found the cashier unable to reckon the amount for which it should be drawn. This suggested a series of inquiries among bankers which resulted in the discovery that hardly one out of ten could make the calculation on sight. Again I am told by insurance-men that they are never called upon to effect an insurance, covering both the value of the property and the sum paid for insurance, and that in consequence *the computation is* never necessary. Here are two famous "gags" of

Boards of Examiners with which you are all familiar. They require a knowledge of the applications of arithmetic beyond what is necessary in the very lines of business to which they are supposed to pertain, yet they are treated of in every school text-book on this subject.

If we were preparing a young man for the insurance business it might be well enough for him to learn the process, though he might never use it. The one case would not require much time in the learning and it might amuse him. We might teach a youth destined to spend his life in the banking business to draw notes, to realize given amounts though he might seldom find it necessary to do so. The simple case would require very little time in the learning, but when, as in our common schools, we are required to teach each one of all who are destined to the different vocations of life, not only all the operations which may be conceived as possible in his own pursuit, but all the conceivable problems pertaining to all the rest, I respectfully submit that we are undertaking to carry a pretty heavy load. But this is the load which we are compelling our children to carry, and all, too, at an age when the several branches of business to which these problems belong are entirely unknown to them. The wonder is that they stagger under it as well as they do.

The truth is that in arithmetic we ought to attempt to teach only that which is common to all trades and professions, containing no more than is common to a majority of them. What is peculiar to the banker, the insurance agent, the county auditor, the collector of customs, the exchange broker, should be taught as belonging to a trade or profession to be learned only when it becomes necessary in learning the trade. It may be said that the customer at bank needs to know how to discount a note as well the cashier, but to this I reply that, with a little common sense, if he knows how to cast interest he can detect the error of the bank clerk, though it might take him some time to acquire the facility in doing it which the clerk needs.

If a boy is skilled in addition, subtraction, multiplication, and division, integral, fractional, and compound, and knows how to compute percentage and one good way of casting interest, he can take care of himself, in the commercial dealings to which his business incidentally calls him, and with that he can easily acquire facility in those computations which belong specially to his own branch of trade.

So far as the common problems in mensuration are concerned, I would have them provided for in a simple course in geometry which I would have substituted for the many commercial rules now required. If the question were directly under consideration, I think it might be maintained with success that the measurement of surfaces and solids is of far more general utility than the reckoning of annual or compound interest, or bank discounts, or partial payments, and certainly, to say the least, they are quite as simple.

I would say study, *master* these applications at any cost, if they were essential to the mastery of the elements of arithmetic, but they are not. As a matter of fact, I think, it will be almost universally confessed that these special applications are taught at the expense of an understanding of the *elements, at the* expense even of readiness and accuracy, in important to the youth of to-day than nine-tenths of all that he learns in geography. These subjects have immediate relation to his every-day life. Having been learned in ever-widening circles, as they can be by the child from 6 to 16 years of age, they go to make an intelligent boy or girl. They would not only be studied in the school-room, but being topics most discussed at the fireside, and amidst the labors of the workshop and the farm, they would be nuclei about which would gather more generous information from which proper generalizations would come and which would finally grow into true scientific attainment. By instruction in the elements of those sciences which it most concerns them to know, men are best prepared for the sake of the world. The difficulty is that we carry arithmetic, grammar, and geography beyond their elements and beyond the understanding of the children at the expense of that which is truly elementary and within their easy comprehension. Not knowing what else to do we force these branches to special, unusual, and remote applications at the expense of those things which pertain immediately to the activities of human life.

After some remarks on this paper by the President it was further discussed by I. W. ANDREWS, of Ohio, W: A. BELL, of Indiana, J. P. GILCHRIST, of Iowa, Mrs. LOUISE POLLOCK, of the District of Columbia, J. P. SLADE, of Illinois, JEROME ALLEN, of New York, and D. F. DE WOLF, of Ohio.

REMARKS OF I. W. ANDREWS.

I am glad that this subject has been presented to this Association. No other exceeds it in importance. No one needs more careful consideration. The position of the paper, that too much time is given in our lower schools to the so-called elementary branches, is impregnable. The children are kept on arithmetic, geography, and grammar, as if there were nothing else to be studied. In the whole public-school course there are some twenty-five branches, besides reading, spelling, etc. Taking high schools and all it is probable that full ninety per cent of the time is given to these three studies, leaving ten per cent to the other twenty-two. And of these three arithmetic gets the lion's share.

I do not say that these branches are too well understood; I do not underrate their importance. My position is, that with a better method the pupil might get a better knowledge of them in much less time. We call them *elementary* studies, and in a sense they are. But all arithmetic and grammar are not elementary. Hear veteran teachers discuss knotty grammatical points and think of a child's comprehending all the hard things of grammar. The higher parts of arithmetic are by no means elementary. The child should learn to add and subtract, to multiply and divide, and to do it rapidly and accurately; but he need not, as a child, learn all the possible applications of arithmetic. This would be like expecting the apprentice boy who learns the use of the plane as a tool to be familiar with every art in which a plane is used; to know not only the work of a joiner, but also how to make pianos and build ships.

A great deal of time is spent on *examples* just for the sake of practice, a large part of which is mere drudgery. Looking into a book the other day and seeing the interminable examples in percentage made me wish there was a society for the prevention of cruelty to children. And yet in no class of algebraic problems does the student more often blunder than in those involving percentage.

It is a great mistake to attempt to *finish* arithmetic and grammar at so early an age. We try to make the child do what is beyond his age, and we keep him from other things which he could do and do well. The Germans are wiser, whose children are admitted to the gymnasium at the age of nine or ten, where they enter upon studies which we reserve for the high school. Arithmetic and grammar being spread over a longer period and taken as the mind becomes fitted for them.

The paper read by Mr. Rickoff does not present the positive answer to the question, What to teach, as clearly as it does the negative. Looking at the subject from the College point of view, I should say teach the elements of Latin. It might be begun at the age of ten or twelve with advantage, and the benefit would appear not only in the knowledge of the language itself, but in the increased facility of learning other things. The period of youth should be well spent. None of it should be wasted in ill-directed efforts. Multitudes of children are at school till the age of twenty who have little to show for it. Yet the lad of fair capacity who has been taken along a good systematic course, early commenced, may at the age of twenty take his diploma at any one of the best colleges of the land.

Mr. BELL stated that he had rarely heard a paper that contained so much that he did not believe. It is nonsense to talk about teaching children only that which stays with them. Much which children study strengthens them, though they have no use for it afterwards.

After some announcements the Association adjourned till 8:30 P. M.

EVENING SESSION.

The Association met at 9:30 P. M.

The Hon. JOHN EATON, National Commissioner of Education, delivered the following address on

EDUCATION AND THE BUILDING OF THE STATE.

To build a State is not to locate a certain number of people in a given territory, nor is it to establish a police department. It is the building up of the whole body politic in all its interests, individual, social, civil; its ideas, doctrines, sentiments, laws, customs, and institutions.

The past and present are filled with its realities, and the theories of statesmen present its ideas. History records the rise and fall of States, important to the youth of to-day than nine-tenths of all that he learns in geography. These subjects have immediate relation to his every-day life. Having been learned in ever-widening circles, as they can be by the child from 6 to 16 years of age, they go to make an intelligent boy or girl. They would not only be studied in the school-room, but being topics most discussed at the fireside, and amidst the labors of the workshop and the farm, they would be nuclei about which would gather more generous information from which proper generalizations would come and which would finally grow into true scientific attainment. By instruction in the elements of those sciences which it most concerns them to know, men are best prepared for the sake of the world. The difficulty is that we carry arithmetic, grammar, and geography beyond their elements and beyond the understanding of the children at the expense of that which is truly elementary and within their easy comprehension. Not knowing what else to do we force these branches to special, unusual, and remote applications at the expense of those things which pertain immediately to the activities of human life.

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The past and present are filled with its realities, and the theories of statesmen present its ideas. History records the rise and fall of States, oratory proclaims their renown, and poetry sings of their sacrifices and heroism. The individuals of which the State is composed, are the crown and glory of this mundane creation which they are commanded to possess and subdue, with the highest human aspirations aroused by a divine motive. Obeying this command man finds that both unorganized matter and all orders of beings are subject to the subtle powers of his mind.

By that power he removes mountains, elevates valleys, directs the flow of rivers, transmutes obdurate metals into articles for his use and pleasure; makes soil productive, quickens the growth of the plant, multiplies the flowers, and paints them with new tints, makes fruit more abundant and palatable; trains a long series of animals to contribute to his comfort and support, and become his most willing servants. Even the mighty forces of nature do his bidding. Yet, great and inscrutable as may be his power over these lower orders of existence, he finds he has a greater power over himself, a power next to creative, by which his body may be made more strong and healthy, and his mind immeasurably more capacious and effective. The processes by which this work on man himself go on, have been termed education; and we have assigned us the task of considering it in its relation to him in organizing the body politic or building the State.

We cannot pause to follow out the almost infinite contrast presented between the skilled hand, and the unskilled; the trained eye or ear, and the untrained; the cultivated perception, judgment, reason, and the uncultivated; the rightly-taught conscience, imagination, sensibility, and the perverted or neglected; the will ever acting accordant with right reason, and the will perverse, obstinate, disobedient, destructive; the moral impulses directed towards all that is pure and high and holy, and those neglected that grovel in all that is base and degrading.

On the one hand it is the man of Christian civilization; on the other the savage. On the one hand the conditions and tendencies are towards all human evils, the corruption of vice, the destruction of crime, the aspect of the man is downward; on the other hand his look is upward, his aspirations are towards heaven, his endeavors full of the highest inspiration.

"To understand man, we must look beyond the individual man and his actions or interests, and view him in combination with his fellows." He is a social being, and "it is in society that man first feels what he is; first becomes what he can be." Who has not at every step felt the influence of companionship? How it strengthens our opinions to feel that another thinks as we think! But in that region beyond the purely intellectual which we call the moral, how ineffably greater is the influence of one upon the other! In what a puzzle would the moral philosopher find himself who undertook to lay down moral laws for man in absolute solitude. He finds the standing-place for his philosophy in the association of man with his neighbor, covered as we say by the second table of the law. "The lightning spark of Thought, generated, or say rather heaven-kindled, in the solitary mind, awakens its express likeness in another mind, in a thousand other minds, and all blaze up together *in continued fire;* reverberated from mind to mind, fed also with fresh fuel in each, it acquires incalculable new light as Thought, incalculable new heat as converted into Action. By and by a common store of thought can accumulate and be transmitted as an everlasting possession." The earliest and simplest form of association is the family. This enlarges itself naturally into the clan, the tribe, and these combine themselves into federations, States, and nations. At first the direction or government is parental; next in the advance, the conditions of person and property are determined by the tribe or clan.

The larger, more extended forms of civil organization are almost without number and without name, but in every form of government, despotic, monarchic, or democratic, authority rests on some doctrine or sentiment, and there is disclosed a purpose of continuance or of self-preservation by teaching, by fixing in the minds of a greater or less number, the notions, precepts, laws, which constitute the condition of its existence.

So fearful are men's minds of the horrors of lawlessness that they have, as Burke says, "*Consecrated* the State; that no man should approach to look into its defects or corruptions but with due caution; that he should never dream of beginning its reformation by its subversion; that he should approach to the faults of the State as to the wounds of a father, with pious awe and trembling solicitude."

The laws and customs in every state are traced to the nature and experience of man, and, however just and wholesome, like the individual from whom they spring, they are marked by imperfections, possibly evils, discords, disorders, generally foreshadowed by the establishment of some false centre of sensibility, some individual or group irritated push out of harmony with each other or the laws which regulate the whole body.

The doctors agree that in a healthy body the several organs perform their functions without disturbance, without pain. No one either usurps or intrudes upon the place of another. Therefore, so long as the several elements of individual life are fitly adjusted, they can, as a great writer observes, "pour forth their movements like harmoniously-tuned strings. It is a melody, a unison; life from its fountains flows out in a celestial music and diapason."

The same is true of the body politic, each notion, custom, law, institution, individual, accordant with every other; our civil life flows on in the largest liberty, because regulated by the best law. The history of nations illustrate this struggle towards harmonious conditions and actions. In ancient history such were the limitations with respect to knowledge, that, as a rule, some one or two principles, or tendencies assumed supremacy and gave color, form, and character to the people and their civilization.

As Guizot observes: "In Egypt * * * it was the theocratic principle which pervaded the entire community; it reproduced itself in the customs, in the movements, and in all that remains to us of Egyptian civilization. In India, you will discover the same fact; there is still the almost exclusive dominion of theocratic principle. Elsewhere, you will meet with another organizing principle—the domination of a victorious caste; the principle of force will here alone possess society, imposing thereupon its laws and its character. Elsewhere, society will be the expression of the democratic principle; it has been thus with the commercial republics which have covered the coasts of Asia Minor, and of Syria, in Ionia, in Phœnicia. In short, when we contemplate ancient civilization, we find them stamped with a singular character of unity in their institutions, their ideas, and their manners; a sole, or, at least, a strongly-preponderating force governs and determines all.

Curtius observes that "in the earlier times it was possible to become acquainted with all the intellectual tendencies of Athens by realizing to oneself its public life in its various relations. For everything was more or less connected with the State, served its ends, and found its basis and nourishment in it. Such was the case with plastic, pictorial, and architectural art, with poetry in all its branches, with the studies of the philosopher, the historian, the astronomer, and with all the departments of science—the manifold variety of intellectual life forming a single whole."

"In early times the quantity of government is much more important than its quality," observes an eminent writer. "What we want is a comprehensive rule binding men together, making them do much the same things, telling them what to expect of each other, fashioning them alike and keeping them so." Herein is discovered the purpose of a variety of speculations among leading philosophers of that period. Plato and Aristotle aimed at building in the very nature of the people, the institutions which they would perpetuate, however narrow and limited the foundations on which they rest.

In the system developed by Solon, at Athens, the council of four hundred was a political school for the citizens, moulding and shaping their ideas of conduct. So great and continuous were the results, that its operations and influence have been a favorable theme of the student of political history. In his system the duty of parents with respect to the training of their children, was emphasized by the law which relieved the son from the obligation of maintaining his father in his old age, if the father had not taught him some art or profession. How violent the means used by Lycurgus to realize his project of creating a State out of the eight or nine thousand Spartan citizens! The citizen was so wholly a part of the State, that he lost his individuality, and the family was destroyed. Only one side of human virtue was considered—"that which is called forth in a state of war; the citizens were converted into a sort of garrison, always under drill, and always ready to be called forth either against Helots at home, or against enemies abroad." Out of this training came "their unrivalled habits of obedience, hardihood, self-denial, and military aptitude; complete subjection on the part of each individual to the local public opinion, and preference of death to the abandonment of Spartan maxims; intense ambition on the part of every one to distinguish himself within the prescribed sphere of his duties, with little desire for anything else." History does not enable us to understand in detail the rigorous "system of individual training * * * mastering the course of the thoughts and actions from boyhood to old age" by which the Spartan character is made to occupy so conspicuous a place for such a number of *centuries.*

The absence of constraining, organizing power educating for good is well illustrated in the Greek colony of Sybaris in the midst of the fertile country of Southern Italy, founded thirty years after Rome. Strangers were welcomed; it gained strong hold of Italian commerce. The character of the climate, joined to the vigor of the laws, simplicity of manners, and the energy peculiar to every rising community, was followed by an enviable increase of prosperity and power; but false ideas of life were allowed to canker public sentiment. The people gave way to their inclinations, and had little regard for their obligations; sense of duty was obliterated, and we learn that the Sybarites came to forbid those practicing noisy arts, such as braziers, smiths, and carpenters, and men of like trades to dwell in their city. Even the crowing cock was excluded.

But Rome with a less favorable sky and less fertile soil grew by the sturdiness of her industries and the efficiency of her municipal laws. Its busy inhabitants compelled tributary nations to confess that the true liberty of social life lies in industry and science, as Gibbon affirms; and the measure of Rome's continuance will be found in the methods and persistency by which her best ideas were wrought into the lives and character of her own people, and the extent to which these were adopted in the other municipalities that fell under her sway and made that group of cities, now the republic, now the empire, and gave renown to the sceptre wielded on her seven hills.

But we need not dwell longer in these remote historical regions to reach the conclusion that in the long run every government is the exact symbol of its people with their wisdom or unwisdom; or to enable us to establish the proposition, like people, like government, or like education, like government and people.

Coming nearer to our times we find the same methods determining the perpetuity of States; that is, they rise or fall according to the measure of the thoroughness and persistency by which their customs, institutions, and principles are inwrought in the people themselves.

How shall we measure the educating power of sentiments and customs? Andrew Fletcher, called Fletcher of Saltoun, two centuries ago affirmed that "if a man were permitted to make all the ballads, he need not care who should make the laws of a nation." Even so judicious a writer as Polybius says that music was necessary to soften the manners of the Arcadians, who lived in a cold gloomy country; that the inhabitants of Cynæthæ, who slighted music, were the most cruel of all the Greeks, and that no other town was so immersed in luxury and debauchery. Plato affirms that a change in music would alter the frame of government. Who is not familiar with the importance attached to the Marseillaise hymn in the eye of a French statesman? But if so great importance is to be attached to education in an imperial or aristocratic, or monarchical form of government, how emphatically is it true in the words of Montesquieu, "it is in the republican form of government that the whole power of education is required."

But as states advance, complexity of leading characteristics takes the place of unity. The contrast between ancient and modern states in this advance towards truth is no less striking—the motion of the ancient is more like that of the rocking-horse, and that of modern more like the course of the thoroughbred racer.

A military nation in modern times must have something more than warlike aptitudes. It will be the greater and stronger for great commerce, prosperous agriculture, skilled and extensive and varied manufactures, the prosperities of art and literature, and the culture of its people. It is important for our purpose also not to overlook the fact that a principle or institution adapted to human conditions once adopted has in its own educating influence upon the people who accept it, a self-perpetuating power that continues it amid the fall of empires and the rise of dynasties. For instance we are informed that the founder of the oldest colony among the savage inhabitants at Attica was also the founder of regular marriages; and has not Tacitus told us of the holy usages of our ancestors?

Who shall estimate the educating influence of this institution upon the monogamous people among whom it prevails, emphasized as it has been by the precepts of Christianity?

The Hebrews are perhaps the most striking illustration in human history of the perpetuity of ideas, customs, and practices. In that state of society where the family idea remains supreme there is no contest with the patriarchal form of government; but when a people passes beyond this into other forms of association two ideas appear contending for supremacy, the one the civil the other the ecclesiastical or religious. In pagan history the relation of the two is often ill-defined. In civilized Europe from the fourth to the eighth century, as Guizot observes, "the general character of the epoch is the concentration of the intellectual development in the religious sphere. The fact is evident whether we regard the state of the schools which still existed or the works which have come down to us." In large portions of Europe for centuries the church attempted supremacy over the State. Associated with this idea was the belief that there could be no proper teaching, no education worthy of the name, conducted by any other agency than the church, because that organization claimed to control the title to eternal life, and to be the only source of instruction in religious doctrines and duties. In the midst of this condition of things in the eighth century, Charles, the son of Pepin le-Bref, afterwards known as Charles the Great, or Charlemagne, came upon the stage, who declared himself "in all things the ally of the apostolic see." His military genius was displayed in the wars with the Lombards, the Saxons, and the Saracens—his grand contests to resist the incursions of barbarism—but his higher statesmanship was disclosed by his employing as teacher of the school at his own court and thus in a sense as the head of instruction in his realm, Alcuin, previously noted for his labors as a teacher in the school at York, England.

A noted monk of the time affirms that before the reign of Charles there existed in Gaul scarcely a trace of the liberal arts, and Charles himself declares that the study of letters had been well nigh extinguished by the neglect of his ancestors. He associated his palace school with his residence wherever it might be, and whenever the affairs of State and cessation of military operations permitted, he himself was wont, along with the more intelligent of his courtiers, to take his seat in the midst of the learners, thus stimulating their ardor by his example. Aspiring youth (royal and others who were destined to high office and Church preferment) throughout the empire were drawn to the school. Other centres of learning were established. Instruction was shaped alike for the advance of the Church and the State. Greek professorships were provided for the purpose of facilitating the intercourse with the Eastern world.

It should not be forgotten that Charles's wife, sister, and daughter shared in the privileges of the palace school, and thus that this revival of learning included women in its benefits.

History has informed us how, soon after the death of Charles, his empire fell to pieces; but his care of education had made sure for the future his contributions to civilization. Schools multiplied, the work of education was pressed forward. In a capitulary of 789 we read: "Let every monastery and every Abbey have its schools where boys may be taught the psalms, and system of musical notation, singing, arithmetic, and grammar, and let the books which are given them be free from faults," adding in most parental phrase, "let care be taken that the boys do not spoil them either when reading or writing." A most noted capitulary of the times patterned after that of Charles, was issued by Theodolphus, bishop of Orleans, which was widely copied elsewhere, and which contained that remarkable provision for the free instruction of the children of the laity, the first appearance in Western Christian civilization of the doctrine of the free school of modern times.

This revival of education in the eighth century, though inaugurated by the civil head of the state and associated directly with the court and including instruction specially promotive of the prosperity of the realm, was nevertheless entirely subservient to the church. Rising states developed greater complexity of interests; the lower classes grew in importance, and education, passing through a fluctuating existence, was steadily illustrating the inadequacy of its exclusive direction by the church and presenting evidences in favor of its larger control by the State. The church never succeeded in securing universal attendance at school of the children of any country. Indeed there arose a doctrine that ignorance was the mother of piety. But however the ignorant masses might for ecclesiastical purposes be controlled through their superstitions, every social and civil upheaval revealed with new distinctness the perils to all civil organizations and all society arising from the untutored condition of the masses. But as if blinded to its own fate, civil power in portions of Europe went on grinding the souls of men, hoping by standing armies and navies, by display of force, by the firmer establishment of divisions and castes in society, to confirm the existing order of things, until the appalling scenes of the French revolution burst upon the affrighted vision of the civilized world. Canvassing all the causes of this utter breaking down of social order in the midst of unbridled passion, philosophical attention is especially arrested by the fact that out of the twenty-six millions of French people at that time twenty-five millions could not read.

Here among the millions that tyranny had kept in darkness for its own uses were prepared the instruments and here were nourished the passions that hurled these instruments indiscriminately for the utter overthrow of king, noble, and priest. But the day of this disaster had not approached without the dawn of a light which might have prevented these catastrophes.

The reformation of Luther had proclaimed the duty of the civil government to educate the youth, in order to prepare them for the better discharge of the duties of adult life. Numerous teachers had wrought out theories emphasizing the power of education, which, however great their admixture of error, had truth enough in them to have saved Europe from the greatest disasters of the last century and carried its people through those great crises by peaceful measures had they been heeded and vigorously and universally applied. This view is confirmed by the effect of educating measures adopted by Frederick the Great in elevating Prussia.

But we are interested not solely in the relation of education to the building of the State in the abstract or in the instructive eras of the past. Personally we naturally connect the discussion with our own times and on our own state.

Great events, multiplied experiences, full of instruction, led the American people to found a government on the doctrine of the separation of church and state, in which, although the civil law is supreme, the church is no more antagonized and forgotten than that other divine institution, the family. The government undertaken, moreover, is one of the people, by the people, and for the people, and not after the patterns of the republics attempted by Greece and Rome, conducted by and for the benefit of particular classes, while the great masses were held in servile degradation.

Here, every living soul is part and parcel of the body politic, has his duties, privileges, and rights, and contributes not only by the effect of his example, but by direct participation in the power of the State as an owner of property, conductor of enterprises, elector, officer, witness, or juryman.

Contemplating these conditions Webster exclaimed, "Heaven grant that it may be the glory of the United States to have established two great truths, of the highest importance to the whole human race; first, that an enlightened community *is* capable of self-government; and second, that the toleration of all sects does not necessarily produce indifference to religion."

What a different end is here proposed by the state and under what different circumstances is it to be attained, compared with all the past! In vain shall we attempt to comprehend the relation of education to the growth of the body politic in our day and under our form of government, without taking into consideration the great advance in industries and arts and sciences, in trade and commerce, as well as in the administration of government. Now the standing of a nation is determined less by its prowess on the field of battle and more by its diplomacy, the justice of its laws, the skill and fidelity of their administration, the extent of commerce, the advance of all sciences, the intelligence and virtue of the people, and their skill and devotion in the pursuits of peace.

The needle-gun and breech-loader compared with the blunderbuss do indeed mark the progress of mechanical arts as applied to war, yet it is no longer the number of these death-dealing weapons so much as the skill with which they are directed that decides the fate of battles—cultured brain-power and moral power are rising in their supremacy over all physical conditions. The arts of peace declare their own special triumphs and glory. However great the growth of the complexity and of the diversity of vast interests in modern states, elsewhere, it is the common boast that they have attained here among us their last and best results. But it is noticeable in passing that in their harmony, in the action and interaction of their parts, and interests and conditions, lies much of the strength of our institutions and of the security of our liberties. These large liberties, so unrestrained as to awaken in minds of other training, a fear of unbridled license are but the alembic in which will be dissipated many evils that threaten the utter ruin of society conducted solely on the idea of restraint and repression. Ours are not the trials incident to the development of a form of government by a people altogether homogeneous in origin and culture; we are made up of the greatest diversity in these respects, and have thrust upon us, as nowhere else upon any people, the solution of the most delicate and difficult questions of race—of the white to the black, the red to the yellow, of each to all and all to each. But we should never forget the great gulfs that open over against these large liberties cherished by ourselves and sought by all peoples and races, those yawning gulfs in which the whole body politic may be swallowed up, if there is not among all classes and all conditions mind to understand these liberties and the heart to cherish and protect them;—'tis not enough that the knowledge and sentiment should be sufficiently diffused to prevent tyranny on the one hand or on the other the atrocities of mob violence, and the horrors of a French communistic outbreak; they should be so universal as to reduce to the last measure in human affairs the possibility of a Booth or a Guiteau. The general culture, promoted by just laws and their enforcement, by the security of life and property, by the general education of the people in all that is virtuous and noble, by the establishment of customs favorable to industry, commerce, and enterprise, is needed now no less than among the ancients whatever other and special provisions for education may be attempted. Moreover the best provision for the culture of youth, it is found by experience, may fail by reason of lack of motive for the use and practice of their results in after life. This has been pointed out by writers in Germany and England who have found whole populations who have forgotten the knowledge of reading, writing and reckoning taught them in school days because there was not enough in their future lives to call these requirements into requisition.

Among us the tax upon each citizen, upon his property, and his attention required to keep up the government (so simple in its form but complicated in its action, part fitting part, legislative, administrative, and judicial, in its subdivision of powers and functions running through the nation, the state, the county, and municipality, in all of which his action may be required,) the frequency, sometimes too great, by which elections occur, the political debates, the free play of organizations, the circulation of the printed page, the manifold forms in which all questions of public interest are brought home to the individual choice and judgment, the large number of people that direct their own business, however small, and the competition which enters into every department of life—all these demands leave small chance for any one of fair capacity to forget what he has once attained in the universal struggle for advancement. The farmer no longer competes with his neighbor on the other side of the stream, the blacksmith with his fellow in the adjoining village, the miner with his collaborator on the other side of the mountain, the spinner and weaver with the wife and daughter similarly engaged at the other cross-roads. Modern sciences, and arts, and enterprises compel every one in the remotest corner to put the product of his labor and skill in competition into the market of the world with every other article of similar product and to lose or win according to whether he has the conditions and skill to put into his article the merit to command purchasers, who against him will use the widest and keenest discrimination. Put our people in the civil conditions of the citizens of any one of the republics of ancient times—Roman or Grecian—compel our farmers to use their plough, and hoes, and carts, our mechanics their hammers, axes, saws, or planes, reduce our domestic commerce to the movements of caravans and that on the seas to the best ships known to the Tyrians, our travel to the speed of the horse, the intercommunication of our rulers to the running and shouting of ancient heralds; take away our modern advance in the sciences, especially those affecting the useful arts, as chemistry, physics, medicine, and engineering, our manifold inventions, the increased command thereby secured of the forces of nature and the shrinkage of every form of occupation, nay, of the individual himself and of the state itself, would create a general indescribable collapse. No wonder that Everett exclaims in one of his eloquent orations: "Mind, acting through the useful arts, is the vital principle of modern civilized society. The mechanician, not the magician, is now the master of life. He kindles the fires of his steam engine, and the rivers, the lakes, the ocean, are covered with flying vessels; mighty chain pumps descend, clanking and groaning, to the deepest abysses of the coal mine, and rid them of their deluge of waters; and spindles and looms ply their task, as if instinct with life. It is the necromancy of the creative machinist. In a moment, a happy thought crosses his imagination, and an improvement is conceived. Some tedious process can be superseded by a chemical application, as in the modern art of bleaching. Some necessary result can be obtained in half the time, by a new mechanical contrivance; another wheel, a ratchet, or a screw, will effect the object; he tries a few experiments; it will succeed, it is done. He stamps his foot and a hundred thousand men start into being; not, like those which sprang from the fabled dragon's teeth, armed with the weapons of destruction, but furnished with every implement for the service and comfort of man."

Along with these enormous advances and largely causing them has come increased attention on the part of the state alike to the higher wants and to the continued progress of the people in culture, but especially to the provision of schools for youth, thus laying greater stress on all those early conditions of life, formation of habits, and determination of pursuits and character. The state has laid strong hold of the doctrine "Like child—like man, and woman;" without interfering with parental control as in Sparta, and without giving the head of the family that unwarranted authority which permitted under Roman law the taking of the life of the wife or child, here the state seeks to add to the conditions by which the home influence may be made more effective for health, growth and sound culture—nay, every family among us in the lowest or highest walks of life has the largest room to do all that it can and will for its children. It may train them to the highest measure of culture in any department of culture in any department of learning; may put them forward in any honorable vocation, whether industrial, literary, or professional it may bring them up in any order of religious, political, or social principles, not only not interfered with by the state but protected by all its power,—save when by neglect or overt act a step is taken by any of its membership, which assails the rights of others and thus violates the law which protects every individual of the whole body politic, and thus comes in to check a movement which would pervert or overthrow the state itself. And it may be confidently asked where else does the sun shine on any nearer approach to the ideal home more generally established among the people of the land?

The same is equally true of the church. The right of private judgment is guaranteed; no one may interfere with another's conscientious or religious scruples; and the result so far has abundantly vindicated the principle.

Where has the church produced higher types of character? Where has it had larger influence upon private life or public administration? Where are its charities more beneficent? In what country where the supremacy of the church over the state is established has the church in the first hundred years of its history achieved such triumphs, erected so many places of worship, gathered so many congregations, issued so many publications and disseminated them so generally among the people, put in religious libraries so many volumes, and brought to the establishment of schools, and colleges, and theological seminaries, under religious direction, opportunities of culture either better in themselves or more appreciated, or gathered to them more munificent endowments than in the United States. The sacred influence of the church is not diminished in these commonwealths where education is or may be under state direction. Here the state does what private and church agencies failed of accomplishing.

It puts the foot of the ladder of learning before every child, however humble, and raises it for his ascent by proper steps to the highest round of university culture—a system sustained by tax levied and expended under the direction of the state on the principle that the entire property of the state is interested in the career of every child and may be taxed for his support as a pauper or for his punishment as a criminal; or benefited and increased by his career of industry, of virtue, or of eminent services.

This movement of thought, of principle, and action which has gone on so steadily and is so generally and vastly increased has encountered many honest fears and much serious opposition. It is not surprising that the family which has done so much for the progress of civilization in all ages or that the church as the guardian of religious sentiment, dealing not merely with things of this life but with those of the life to come, should have hesitated and sometimes trembled to see the work of carrying forward the general education of the young so absorbingly engaging the attention of the state, here where it claims supremacy in all civil affairs. I say it is not surprising that either the family or the church looked upon this measure of public education with distress or alarm until each found by convincing experience that under no other conditions of the administration of instruction had either the family or the church found either so large, so healthy, or so delightful a sphere for its activities. But the state proceeds upon the expectation that every child will come to the duties of citizenship through the family; and the better, the more complete the influence of the family is upon him, the more satisfactory to the state. Nay, more than this, our civil organization so rests upon the fundamental principles of human rights that if the family neglects or violates the rights of the child at any moment of its existence, provision is made that the officers of the law shall step in and furnish these home conditions for the infant, shelter, food, raiment, and education; or if any child, son or daughter, of the church steals, or robs, or murders, the civil authority appears and protects the body politic by enforcing the penalty of the violated law. Surely then no member of the best family or most active church, because either or both may claim to perform this home or church duty for its own members, teaching them all neighborly and manly duties can object to bearing his share in the tax and toil which guarantees the purity and perpetuity of civil administration, and however much either family or church may do for its own membership in promoting the highest learning it cannot object to bearing its part in tax and toil for the support of that public instruction which aims to guarantee for the whole body politic that sufficiency and universality of intelligence and virtue which shall render possible to every citizen the competent discharge of his duties and equally possible to the state its just and competent administration. Nor are we in this affirmation unmindful of any of the charges against public instruction, made either for partisan or sectarian purposes, that instruction under the direction of the state is a failure—that it is Godless—that it does too much. The clear average common sense of the people is able to see, through all the fuss, and smoke, and dust created by these assaults, the flag of their sentiments in triumph waving. A few clear counts suffice and they push on the good work:

(1). Largely the same text-books are used.

(2). The houses and appliances of the public schools are in conditions quite as favorable to produce a sound mind in a healthy body as those under any sectarian or other direction.

(3). The teachers employed to impart public instruction largely belong to one or another of the religious sects.

(4). In very many instances the teachers of public and private schools interchange positions.

(5). The private life and example of the public-school teachers will not suffer in comparison with others.

(6). There has not yet been discovered an appreciable difference in the doctrine of morality taught.

(7). The methods of instruction are as logical and are substantially the same in their appeals to the perception, memory, sensibility, right reason and right conscience of the child.

(8). Public instruction is brought under as close inspection, and has legal guarantees of its good character at least equal to any other.

(9). The public school carries its beneficent influences to multitudes where the influences of the home and church are reduced to a minimum, or where their salutary and useful restraints are never felt.

I do not state other advantages that an ardent advocate might claim, and have only given moderate utterance to what the people discern, which they press on with increasing determination and enthusiasm, encountering those objections that are made against all culture. Many of these objections disappear upon the slightest examination. Sometimes they are raised by men whose wealth, culture, or position are considered assured, and who are unwilling to have like privileges enjoyed by others. Again they are raised by those who are engaged in various *practical* pursuits, agricultural and mechanical, and who affect to despise all "book-learning." These surrender their own standing ground by allowing that a given education which they approve is useful; so that whatever delays and injuries may happen here or there, now or then, to institutions, systems, methods, the work of improvement is on the whole making great advances.

Gradually the conviction is gaining ground that there is scarcely an industrial process that does not require a mental as well as a physical effort. Mechanics must be on the alert or some new machine or improved process will leave them in beggary; farmers, after failing to make ends meet and exhausting their soil, wake up to the truth that they too can only maintain their position by skill and intelligence; in a word, increased dexterity, greater power of concentration, superior trustworthiness, quickness in discovering new industrial processes, are some of the many advantages which the laborer whose mind has been trained generally possesses over one who has grown up in ignorance.

So inwrought are these conclusions in the state of the American union; so vital and fundamental does education seem to be to the existence of the state, to the welfare of the individual, whether considered apart by himself or as a member of the family or church; so essential is the universal culture of the young to the benefits and amenities of social order; so helpful to the ends sought by the learned professions, so noticeable in its effect upon the productiveness to the productiveness of every industry; so largely preventive of pauperism, crime, and all the evils of disease; that we are not surprised to find every state reckoning education among the most important *functions*, and assuring the efficiency of instruction by committing its supervision and administration to a class of officers specially selected for their competency, from the teacher in the smallest district school, up to the superintendent of public instruction, the chief executive in the department of education. The efficiency with which this department of the civil service has been administrated in the last fifty years among civilized nations may be taken as the index and symbol of the actual condition and progress of the people.

Who can doubt that one cause of the present disturbed condition of Ireland is due in part to the too long continued sway of the hedge schools, whose schoolmasters were paid by "sods of turf, a kish of prates, a dozen of eggs, or a Christmas or Easter roll of fresh butter," as related by Mrs. Hall. On the other hand wherever any people has put adequate means, energy, and wisdom into the administration of education progress has been accelerated in geometrical ratio.

In how many forms great statesmen have illustrated their conception of this fact? Peter, the Great, went abroad to acquire personally a knowledge of the sciences, arts, and trades, that he might introduce them among his people. Napoleon restated the French code, and if an institution of learning was not favorable to his aspirations he destroyed it or remodelled it to suit his purposes. The University of France became his creature; all existing institutions of learning gave way to it, and its head became the master of all instruction in France. Brougham came to fame by his endeavors to save England from tendencies to decrepitude and revolution by giving the people a better and more universal education. Japan, by educational methods and measures has been taken from among the most stolid and immovable of nations and transferred to the ranks of the most progressive. How inconsiderable was the effect upon China of all efforts of trade or commerce with other nations, or the power of the English army and navy, or of the combined diplomacy of the world, to start its people from the dead level in which they had been frozen for centuries, save as new processes of education began to produce their effect upon individual Chinamen at home and abroad. The theory and practice of the long line of eminent American statesmen were well-voiced near the start in a single memorable sentence by the father of his country: "In proportion as public opinion gives force to the structure of a government it is essential that public opinion should be enlightened." How often we hear fitly quoted, yes, to-day we have heard fitly quoted similar sentiments most emphatically and anxiously expressed by his most worthy successors, and we look along the line of Presidents in vain for any one who has done more for the promotion of education by legislative act, or who has in more broad, clear, and eloquent utterance, declared its relations and importance in the building and preservation of the state than James A. Garfield, who, leaving behind the other duties of his high office, came to the closing exercises of a normal school but a few days since, and in presenting the honors to the young teachers, said: "Perhaps it is true that once a teacher always a teacher. I am proud to acknowledge that I was once a teacher and that I cherished a fondness for the profession and take pleasure in giving you welcome to its ranks." Earnestly did he *think of being* with us at this gathering and on considering the several most fit and cordial invitations from the President of the Association, from your State Board of Education, from the Mayor and Council of Atlanta, and from the Governor of the State, said: "It is just what I would like to do."

On the afternoon of his inauguration as President, addressed in words of tenderness and congratulation by his old college chief he replied: "To you next to my mother I am indebted for the influences which have shaped my character and course in life." Already had he left the Executive Mansion to attend the commencement of his Alma Mater and further commemorate his interest in education as the primary interest of our people and the foundation of the state by attending a meeting similar to this in Vermont, when he was arrested by the cowardly and malignant attempt of the assassin upon his life which awakened here as everywhere throughout the land horror at the deed, sympathy for the sufferer and his family, anxiety for the country, at once lifting above all partisan question the greatness of his ability and attainments, the purity and nobleness of his life, his fitness to conserve the nation's good and brought out anew a most unequivocal expression from every town and city in all the broad land that we are *one* people, and that our national life is inexpressibly dear to us all.

Announcements were made in reference to a meeting of the Southern Educational Association and in reference to the Banquet at the Kimball House.

The President then appointed the following-named persons as Committee on the Nomination of Officers.

M. A. Newell, Maryland; Edgar A. Singer, Pennsylvania; C. C. Rounds, Maine; William A. Mowry, Rhode Island; N. A. Calkins, New York; J. P. Wickersham, Pennsylvania; Miss J. E. Hodgdon, New Hampshire; Miss C. A. George, Massachusetts; Mary S. Shields, District of Columbia; Hugh S. Thompson, South Carolina; S. C. Caldwell, Georgia; E. K. Foster, Florida; H. C. Armstrong, Alabama; Wm. O. Rogers, Louisiana; H. D. Wyatt, Tennessee,; J. D. Pickett, Kentucky; A. J. Rickoff, Ohio; E. E. White, Indiana; James P. Slade, Illinois; W. C. Whitford, Wisconsin; C. W. Smith, Minnesota; J. C. Gilchrist, Iowa; F. Louis Soldan, Missouri; W. W. W. Jones, Nebraska; H. C. Speer, Kansas; J. M. Fish, Arkansas.

Adjourned.

After adjournment the members of the Association and citizens of Atlanta, to the number of about five hundred, attended at the Kimball House a complimentary banquet which had been tendered by the teachers and other citizens of Atlanta. The excellent music, the elegant collation, and the brilliant gathering of Southern ladies, will not soon be forgotten by those present. Such an array of beauty and intelligence has seldom, if ever, been seen in this country. The whole affair was a credit to the spirit of the people of Atlanta.

Complimentary Reception
National
Educational Association,

Kimball House, Atlanta, Ga., Tuesday, July
19th, 1881, 10 P. M.

Committee of Invitation.

Citizens.	Teachers.
John Milledge,	Laura A. Haygood,
Robt. J. Lowry,	Wm. B. Bonnell,
Chas. E. Boynton,	E. G. Moore.

* * *

Teachers' Reception.

Kimball House, July 19, 1881.

Admit One to Supper Room.

Second Day's Proceedings.

WEDNESDAY MORNING JULY 26, 1881.

The Association met at 9:40. Prayer was offered by the Rev. Dr. A. MEANS.

On motion of W: D. HENKLE, L. S. THOMPSON, of Indiana, was appointed assistant secretary.

The Hon. J. P. WICKERSHAM then presented the following report in printed form which was distributed to members.

EDUCATION AND CRIME.

The Committee which I have the honor to represent was raised at the Philadelphia meeting of the Association in 1879. It grew out of a discussion on a paper by Hon. J. W. DICKINSON, of Massachusetts, on the "High-School Question." As against High Schools, the assertion was boldly made that a very large proportion—sixty per cent, I think—of the convicts then confined in the prisons of Philadelphia, were High-School graduates. This assertion was as boldly denied, and a committee was at once appointed to ascertain its truth by an immediate inspection of the institutions indicated, and report before the Association adjourned. To perform the allotted task in the appointed time was found to be impracticable; and under a more formal resolution of wider range, the committee was authorized to inquire not only into the special question then mooted, but to collect general statistics, showing the relation of education and crime, and report at the next meeting. The Chairman of the Committee was Dr. J. A. PAXSON, of Philadelphia, the gentleman who had made the statement that brought about the issue; but, for some unexplained reason, he neglected to call the committee together or to make a report on his own responsibility. The Association was therefore disappointed at Chautauqua in not receiving the expected report; and, in the hope of securing an investigation of the question, changed the order of the names on the committee, and, against his protest, placed the writer at the head of the list. These words are sufficient to explain how the matter first came before the Association, and at the same time define the line of investigation which it was intended the committee should follow.

First, then, we must report specially the facts as regards the number of High-School graduates in the Philadelphia prisons; and, second, discover if we can, in a general way, how education affects crime.

The statistics of the Eastern Penitentiary of Pennsylvania are probably compiled with more care and presented in more detail than those of any other similar institution in the country. During the year the Association met in Philadelphia, 1879, there were received at this penitentiary four hundred and eighty-seven convicts. Of these, eighty-two had never attended schools of any kind; five are reported to have attended College for an average length of time of six years, one of them having attended ten and another seven years; seven are said to have atttended a public High School for an average length of time a little over two years; twelve had been at private schools who had never attended public schools, the average time spent in school being seven and a quarter years; three hundred and ninety had attended public schools, one hundred and sixty-nine of them advancing to the grammar grade, the average age at leaving school being fourteen; and the average time they remained in school is set down at about five years. These are the exact official figures; and instead of there being a large percentage of High-School graduates in the penitentiary, it appears that there were only seven of all the convicts received in 1879 that had ever attended a High School, and not one of these had attended long enough to graduate. True, five are said to have attended colleges, but they must have been colleges of a peculiar kind to permit attendance for five, seven, or ten years, as stated in these cases.

The statistics of the same Penitentiary for 1880, repeat those of 1879. Thirteen convicts out of the four hundred and sixty-three received, are said to have attended American High Schools, but of these eight attended only one year; and but a single one attended as long as three years. There is no reason to think any one of them graduated. Five are said to have attended college; but three of them attended too short a time to graduate, and the other two, who are set down as having attended seven years each, both left school at the age of sixteen.

We have been unable to obtain reliable statistics of the kind wanted from Moyamensing, the Philadelphia city prison; but instead we present from the combined statement of the State Board of Public Charities, showing the educational relations of all the convicts sentenced to the jails and work-houses of the State, for the year 1879, including Moyamensing prison, a most important fact bearing on the case. Of the two thousand three hundred and seven persons convicted and sentenced to these institutions during the year, only thirteen are said to have possessed a superior education; and it is not at all likely that there was a graduate of either a High School or College among them.

To add further weight to this evidence, it may be stated that out of five hundred and seventy-one convicts received at the Western Penitentiary of Pennsylvania during the years 1879 and 1880, only three are set down by the prison authorities as possessing what they call a superior education.

These statements dispose of the question in the hands of the committee so far as it relates to the number of High-School graduates in Philadelphia and Pennsylvania prisons. It may be added however, that the same showing is made by all the prisons in the country. The number of liberally-educated, native-born Americans, whether graduates of High Schools or Colleges, found in our jails and penitentiaries, is exceedingly small; not more, we think, than one in five hundred of the whole number. Such a fact must more than satisfy the most ardent friends of higher education.

But the hardest task imposed upon the Committee remains to be performed, viz., to find out, if we can, in a general way, the effect of education upon crime. The question is, taking education as we have it in this country as a whole, higher and elementary, public and private, does it tend to diminish crime, and if so, to what extent?

We are free to acknowledge at the threshold of our inquiry that there are causes of crime other than ignorance; but it is no part of our present purpose to search them out. We shall endeavor to confine ourselves strictly to the question submitted to us, in the hope that in this narrower field we may be able to discover the truth, and that the truth, when discovered will justify us in claiming that the education our people are receiving, imperfect as it is, does something to prevent crime. We should be rejoiced if, as the result of our inquiries, we could say to the educators of the country: In proportion as you improve your schools and your teaching, crime will decrease.

First, then, let us see what light the statistics of our prisons throw upon the question before us. The population of our States and communities is made up of two classes: those who are wholly illiterate, and those who can read and write, and possess various degrees of knowledge above these acquirements. The census returns draw a sharp line between these two classes, and we may know the number of each in any county, city or State. The convicts in most of our prisons are classified in a similar way, into illiterates and those who possess more or less education. Now, if among the convicts in our prisons there is a larger proportion of illiterates than there is in the States or communities from which they come, the conclusion would seem to be inevitable that education has an influence in preventing crime. In applying such a test, we are well aware that education is at a disadvantage, because large numbers of convicts in our prisons who are set down in the reports as being able to read and write can do so very imperfectly, and in reality are about as ignorant as those classed as wholly illiterate. Still, the statistics shall be presented as we have them.

The two Pennsylvania penitentiaries received in 1879 seven hundred and ninety-nine convicts, and of these one hundred and fourteen were wholly illiterate. In 1880 they received seven hundred and twenty-two convicts, of whom one hundred and fifty-one were wholly illiterate. In two years one thousand five hundred and twenty-one convicts, with two hundred and sixty-five illiterates. Thus there is committed by illiterates more than one-sixth of all the crime in Pennsylvania for which punishment is inflicted by incarceration in penitentiaries; while persons of this class of an age to be sent to the penitentiary for crime do not constitute one-thirtieth of the population. It appears, therefore, that one-sixth of the crime in the State is committed by the illiterate one-thirtieth part of the population. But this is not all. In addition to the illiterates, there were received at the two penitentiaries, in 1879 and 1880, two hundred and seventy-two convicts who could barely read and write, and had no education beyond that point. If we class these among the uneducated, as we clearly have a right to do, the number of illiterates in the penitentiaries would be swelled to five hundred and thirty-seven, and the astounding *fact would* appear that more than one-third of all the penitentiary offences in the State are committed by this small but unfortunate class of our people.

Such is the story told by the penitentiaries of Pennsylvania; its purport is scarcely modified in any degree if we combine with the statistics of the penitentiaries those of the county jails, work-houses, and houses of correction. In 1878, of four thousand and twenty-three admissions into these institutions, one thousand two hundred and nine could not write; and in 1879, six hundred and twelve could not write out of two thousand three hundred and seven admissions. A majority of those who could read and write with more or less facility were otherwise grossly ignorant.

So far we have taken our statistics from Pennsylvania, because they were most easily obtained. Those of other States and other countries show like results, and lead to like conclusions. We have before us the reports of the penitentiaries and prisons of some twenty States. As a whole, they tell substantially the same story of the relations of education to crime as the reports of the penitentiaries and prisons of Pennsylvania. With this testimony before us, we reach the following conclusions:

1. That about one-sixth of all the crime in the country is committed by persons wholly illiterate.
2. That about one-third of it is committed by persons practically illiterate.
3. That the proportion of criminals among the illiterate is about ten times as great as among those who have been instructed in the elements of a common-school education or beyond.

These conclusions correspond in the main with those arrived at by other inquirers. S. H. White, an ex-president of this body, in his valuable essay on "Education and Crime," has the following statements:

Speaking of New-York City, he says that "among the illiterates there is one crime to a fraction over three persons, while among those not illiterate there is one crime to about twenty-seven persons; or, the chances for crime among those who cannot read and write are nine times as great as among the rest of the people." Of the State of New York, he says: "Seven per cent of the people commit thirty-one per cent of the crimes. A person not able to read and write is six times as apt to commit crime as one who can read and write." In Massachusetts, he states that, in 1871, "among the ignorant population one in twenty committed crime, while among those who had a greater or less degree of education, there was one crime to about one hundred and twenty-six persons." In Illinois Mr. White found one out of every one hundred and thirty-seven of the illiterate in prison, while of those with more or less education there was only one to five hundred and sixty-six.

Dr. Edward D. Mansfield, in a report to the Bureau of Education in 1872, on "The Relation between Education and Crime," with the criminal statistics before him from nearly all the States, reaches the following conclusions:

1. That one-third of all criminals are totally uneducated, and that four-fifths are practically uneducated.
2. That the proportion of criminals from the illiterate classes is at least ***tenfold as great as*** the proportion from those having some education.

Rev. **Charles L. Brace**, at the head of the Children's Aid Society of New York, states that nearly one-third of the crime in New York is committed by the illiterate six-hundreth part of the population. He adds: "Very great criminality is, of course, possible with high education; but in the immense majority of cases, a very small degree of mental training or intellectual tastes is a preventive of idleness and consequent crime."

Dr. E. C. **Wines**, one of the highest authorities on the subject under consideration in this or any other country, in his great work on the "State of Prisons," presents his conclusions in the following words: "Taking the entire mass of the inmates of all classes of prisons in the Northern and Western States, the proportion of those wholly illiterate to those that have received a moderate degree of education, often very moderate indeed, may be stated with substantial correctness at about one-third. In the Southern States the proportions are just about reversed, being two-thirds illiterate to one-third partially educated. The number of prisoners who have received a superior education in either section is small indeed."

The criminal statistics of foreign countries add weight to these statements. Of one hundred and forty-seven thousand and seventy-three persons committed to prison in 1872 in the British Islands, forty-nine thousand three hundred and forty-five could not read or write, ninety-two thousand one hundred and twenty-six could read or read and write imperfectly, leaving only four thousand eight hundred and ninety-two who could read and write well, and two hundred and twenty-three who had received a superior education. The number of women and girls arrested and punished for crime in London in 1877 was twenty thousand and eighteen. Of this number, four thousand two hundred and six, or twenty-one per cent, could neither read nor write; thirteen thousand six hundred and sixty-five, or sixty-eight per cent, could read only; two thousand, or ten per cent, could read and write tolerably well; one hundred and forty-one, or seven per cent, could read and write well, and six had received a higher education. A late number of the *Journal des Bibliotheque Populaire*, Paris, contains a table of criminal statistics embracing sixty-four of the Departments of France. From this statement it appears that of three thousand three hundred and fifty-four persons arrested for crime, one thousand four hundred and eighty were unable to read and write, one thousand three hundred and sixty-one could read and write imperfectly, and only five hundred and thirteen could read and write well. And Dr. **Wines** is authority for stating that, in Belgium, one-half of the prison population is wholly illiterate on commitment, and, in Holland; one-third.

Some notice must be taken here of a class of writers who have not found in education, as we think we have, a cause tending to diminish crime. They are willing to admit that education may change the direction of crime, perhaps remove some of its most revolting features, but cannot lessen the actual amount. Certain of these writers reach this conclusion by contrasting the criminal statistics of countries differing in the degree in which education is diffused among the masses of the people. Countries in which education is general, they allege, show as great an amount of crime.as countries in which a much larger proportion of the people are illiterate. Prussia, it is said, where elementary education is almost universal, has proportionally many more convicts in her prisons than France, only about one-half of whose adult population can read and write. In view of statistics of this kind which he presents, ALISON, in his History of Europe, pronounces the doctrine that education in a large sense tends to prevent crime, a fallacy. He is followed by others less noted. HERBERT SPENCER, in his Social Statics, and BUCKLE, in his History of Civilization, arrive at the same conclusion from somewhat different premises. They find, or think they do, that the criminal statistics in a country for a series of years show that the amount of crime is a constant quantity, proportionate to the number of people, and apparently unaffected by educational or moral influences. A nation may grow, these cold philosophers maintain, may rise in the scale of civilization; but the amount of crime it commits will remain a fixed quantity, governed by unalterable law, and can be predicted with the same certainty as the death-rate. Says BUCKLE, "It is decisively proved that the amount of crime committed in a country is, year after year, reproduced with the most startling uniformity."

In answer to the first phase of this argument, it may be stated that it does not follow because statistics seem to prove that more persons proportionally have been found guilty of crime in some well-educated country than in one more illiterate, that education does not tend to prevent crime. The statistics may have been compiled on different bases. There may have been differences in the efficiency of the criminal administration. The laws may recognize offences as crimes in one country that are not so recognized in another. One country may punish certain offences by imprisonment, while another may do so by fines. Besides, there may be differences in race, in climate, in political and social condition, that should be taken into account. Ignorance, of course, is not the only cause of crime. No one claims education to be an antidote for all criminal propensities. Prussia may have more convicts in her prisons proportionally than France, but, if so, and the matter be probed to the bottom, it will be found that the cause is not in her schools, but exists in spite of her schools; for in Prussia, as in all other countries, an illiterate man is many times more likely to commit crime than one who is educated. If, therefore, the average German is more likely to commit crime than the average Frenchman, it is because there is a crime-producing factor in his nature or in the circumstances that surround him which his education has not been able to eliminate.

It is probably true, as stated by SPENCER and BUCKLE, that in a particular country crime is about uniform from year to year—that is, a certain percentage of the population became criminals last year, about the same percentage will become criminals this year and the next, and this uniformity may cover a period of many years. But if the question were examined closely, it would be found that in the same country the amount of ignorance is about as uniform from year to year as the amount of crime; and, therefore, no fair-minded person would expect crime to decrease. But suppose a nation could be named whose percentage of criminals had remained uniform for the last fifty or a hundred years, and suppose that in such nations during the same period education has become more general, does it follow necessarily that education has no effect as a preventive of crime? Is not crime more apt to be detected and punished as a nation advances in civilization? Are there not many acts considered as crimes in a highly-advanced condition of society that are looked upon with less severity in its earlier, illiterate stages? As population grows more dense, as the struggle of life becomes more intense, as the gates of remunerative employment are closed against famishing thousands, as temptations multiply, is it not reasonable to expect crime to increase? Were it not for the restraining effects of intellectual, moral, and religious influences, our opinion is that it would completely disrupt society and resolve its broken fragments into chaos. The philosophers we have named may reason well in many things; in this their inferences are certainly not justified by the facts.

This discussion has prepared us to take notice of an attack which has recently been made upon our public schools, based on the statistics of education and crime contained in the reports of the census for 1860. These statistics, it is alleged, show that in certain States where education is most general, crime is very much more prevalent than in certain other States where a large proportion of the people cannot read and write. They are quoted as proving that the moral condition of the New-England States, in particular, with their more than two centuries of free schools, is decidedly worse than the moral condition of the States of the South, where until recently free schools were almost unknown. This is the weapon used against the public schools by Mr. Z. MONTGOMERY in California, Mr. RICHAND GRANT WHITE in New York, and by others in various places throughout the country.

It is perhaps a sufficient answer to give to these critics to say that the census of 1860 is not considered reliable as regards the statistics of crime and pauperism, that the reports are acknowledged to be full of errors by those who compiled them; but even if otherwise, even if there were at the time the census of 1860 was taken more convicts in the prisons of Massachusetts in proportion to population than in those of Virginia, more in those of Connecticut and Pennsylvania than in those of South Carolina and Georgia, it does not follow that education does not tend to prevent crime, or that an effective public-school system is not a boon to society. Other circumstances calculated to affect crime and the criminal statistics of the two sections, must be considered before the question can be settled. Without doubt, in the years that are gone, the machinery for the detection and punishment of crime was more effective in the North than in the South. Certain offences recognized as crimes by the codes of the former section were not so recognized by those of the latter, and imprisonment for offences was comparatively more common. The population of the South was mainly agricultural and thinly scattered over a large extent of territory, while that of the North, especially in the New-England States, was crowded into manufacturing towns and villages, and subject to all the temptations such places afford. The South was almost wholly free from the influence of the foreign element, which at the North not only furnished a large proportion of convicts for the prisons, but did much to demoralize those born on the soil. Besides, in the old slavery times, many petty offences for which persons were sent to jail at the North were punished at the South, if punished at all, on the plantation. It was the interest of the masters to keep their slaves out of the courts. For these reasons there may have been more convicts proportionally, in 1860, in the prisons of the North than in those of the South; but the cause is not to be found in the public schools, for in both sections it is the ignorant that curse our communities with crime and fill our prisons with wretched human beings. And, apart from all misleading statistics, it is an undeniable fact that wherever in this country you find public schools long and well established, there you find in the highest degree comfort, thrift, intelligence, culture, and whatever else goes to make happy homes and a prosperous people.

No inquiry into the relation of education and crime can be complete without taking into consideration the effect of education upon erring or neglected children, as shown by its results in our Houses of Refuge, Schools of Reform, and Homes for the Friendless. If the worst of children gathered into institutions of this character—children who, if left to themselves, would almost certainly follow a life of crime and end their days in prison—can be made by education and favorable surroundings, in large proportion, useful citizens, no one can doubt that a most effective mode of preventing crime has been discovered. It may seem marvellous to those who have not given attention to the subject, but the results of our reformatories for the young lead to the conclusion that if the population now filling our penitentiaries and prisons had been properly cared for and educated when young, at least three-fourths of them would have been saved to society and themselves. Let the plain facts be stated.

We have before us a table carefully compiled by the best authorities and contained in the Proceedings of a Convention of Managers and Superintendents of Houses of Refuge and Schools of Reform, held in the City of New York, in May, 1857. This table shows, among other things, the whole number of inmates, their average age, the average period of detention, and the per cent of reformed in some seventeen institutions of the class represented, located in eleven different States. The whole number of children admitted was twenty thousand six hundred and fifth-eight, their average age twelve and two-third years, the average period of detention about twenty months, and the percentage of reformed *seventy-five*. Seventy-five per cent of these incorrigibly bad children, these young criminals, reformed in twenty months! Such is the official record.

Dr. E. C. WINES, in his late great work on the "State of Prisons and Child-saving Institutions," estimates that of the twelve thousand children now in the reformatories of the country *sixty* per cent at least will be trained into good citizens. "Some would claim," he says, "seventy-five or eighty per cent, but statistics do not bear them out." "Perhaps," he adds, "the percentage of worthy citizens trained up among the whole twenty-five thousand in preventive and reformatory schools would be as high as seventy-five per cent."

The State Public School of Michigan is known all over the country. Its object is "to save children who are in danger of becoming criminals before they have actually become such." It is a school for pauper and vagrant children, children of evil tendencies, and children whose circumstances and surroundings would almost certainly keep them in ignorance and lead them into vice. Hear the cautious statement of results as contained in the report of the superintendent for 1878: "Considering," he says, "the heredity of these children and the influences which surrounded most of them previous to entering the institution, I am myself surprised at the results. There is no doubt that a large majority of them, left where they were, would have become criminals or chronic paupers; but it looks now as though *eighty* or *ninety* per cent would become respectable, if not ideal citizens. Coming years can alone determine what the complete results will be." In a paper prepared two years later, the superintendent says: "Enough is known to satisfy us that there are very few of the children who go through the school who will not prove as good in morals and life as the average children in the community. I could not place the loss as low as five per cent."

One of the nineteenth-century miracles is the work of the Children's Aid Society, of the city of New York, whose head and inspiring spirit is Rev. CHARLES.L. BRACE. The children gathered into the schools directly under the charge of Mr. BRACE number many thousands. They are children without home or friends, picked up by policemen on the streets, or hunted out of cellars, garrets, and dens of vice—the sons and daughters of paupers, beggars, drunkards, and criminals. Can anything be done for this mass of youthful depravity? Many of them have already been initiated into criminal ways, or taken the first steps in vice. All of them are extremely poor, and their hard life has blunted their sensibilities and dwarfed their moral nature. Are they not past help? If virtuous men and good citizens can be made from this unpromising material, will any one longer doubt that we have found the new elixir that can transmute the basest of metal into the purest of gold? Mr. BRACE receives these children into his schools, feeds, clothes, and cares for them. Under his charge they enjoy a pleasant home, have kind friends, and are given an opportunity to learn and to work. Their self-respect is cultivated, their conscience quickened, and they are filled with a purpose to be somebody and accomplish something in life. As soon as it can be safely done, they are placed in good homes, mostly in the country, out of the reach of the temptations that might allure them back to their old ways. What is the result? Mr. BRACE says, "Not more than three children out of a thousand leave his schools to become paupers and criminals!" Thus is proved the wisdom of the much-quoted but much-doubted sentiment of Solomon: "Train up a child in the way he should go, and when he is old he will not depart from it."

The State of Pennsylvania at the close of the late civil war undertook the task of providing education and maintenance for all the destitute children of her dead and disabled soldiers. In this benevolent and patriotic task the State became the guardian and care-taker of twelve thousand children. The children thus provided for must in all cases be in destitute circumstances—in many cases they are found to be in a condition of actual suffering. Their home surroundings in the main could hardly be worse. Orphaned by the war, their poor mothers in most cases were unable to send them to school, to give them employment, or even to keep them out of bad company, or prevent the formation of bad habits. When they come under the charge of the State they are generally very ignorant for children of their age, and about as unpromising morally as any children that can be found. What is the result? Of the twelve thousand children admitted into the Soldiers' Orphan Schools, nearly nine thousand have been discharged after remaining in school an average length of time of six or seven years. Probably one-half of these have now reached the age of manhood, and entered upon the active business of life. Means are at command of ascertaining where they all are, and what they are doing, and a careful canvass of the matter shows that not two per cent of the whole have turned out badly, and at least ninety per cent have become useful men and women. This is a strong statement, but not stronger than the facts warrant. It shows the wonderful uplifting power of educational influences when properly directed with a fair chance to operate. Pennsylvania has expended in this good work nearly $7,000,000, but she has more than saved that amount from the lessened cost of her poor-houses, prisons, and penitentiaries.

In the face of facts like these, can any one claim that education does not tend to prevent crime? It is true that our public schools do not accomplish all in this direction that ought to be accomplished. They work at great disadvantage. There are hundreds of thousands of children throughout the nation that they have never yet been able to bring within their reach. A very large proportion of those who do attend school remain under instruction but for a short time, scarcely long enough to acquire the merest elements of knowledge, much less to complete an even moderately liberal course of study, or to form a stable moral character. And, at the best, the pupils in the public schools of the United States are under the care of their teachers, on an average, only about one-fourth of the hours of the day, and scarcely more than one-fourth of the days in the year. It frequently follows that the good influences of the school are neutralized by the bad influences of the street, and that vicious companions pull down quite as fast as the best of teachers can build up. Then the popular demand is for intellectual results; and to produce them teachers tax themselves to the utmost, forgetting that moral instruction, the formation of character, the shaping of life, is the grand purpose of all education. With these and other drawbacks that might be named, it is too much to expect the public schools to rid us of all the evils that afflict society; too much to expect an attendance at school for a week, a month, a year, with ability to read, write, and cipher a little, to keep men out of prisons and penitentiaries who have had no home training in their youth, who have been allowed to associate with the bad, taking from them daily lessons in vice and crime, and who have grown up idle and without restraint. But with all its defects, we are well convinced that the system of public schools is the most potential agency, by all odds, at work among us to-day, to root up vice, to lessen crime, to lift up the people to a higher plane of civilization, and to save the sacred principles of republicanism our fathers planted on American soil and bade us cherish with our lives, our fortunes, and our sacred honor.

On behalf of the Committee, J. P. Wickersham, *Chairman.*

The Hon. D. F. DeWolf, of Ohio, then read a paper on

SOME ESSENTIALS IN THE DEVELOPMENT OF A SCHOOL SYSTEM.

The excellent paper, discussing the course of study for the public schools of America, which was presented at your last meeting, renders it unnecessary for me to refer to that essential of a good system of public schools. Any one desiring a proper framework or skeleton, as the support of a vital system of education, has only to consult that well-elaborated paper. But institutions that vitalize, or produce the growth of vital forces, must themselves contain vital forces. The acorn which has life in itself to transmit to an organized system of forces, the oak is itself the product of an organized system of forces, and the new oak extends to us its shade and beauty, and serves us with its strength, in virtue of the life it derived from the previous living activities.

We may trace on paper the process and the stages of its development, the material which is to be in the soil and which must be laid hold of and fashioned into the new being. The life, the real agency of growth, does not manifest itself to the dissector's knife, but only through the continued operation of the life which it has transmitted. But the essential operations of this life make known to us some of its characters, as we are said, indeed, only to know matter from what it does. Hence, given a new purpose sought from these forces, we know how to adjust their conditions to the accomplishment of this purpose. First, then, What is the purpose of the system which we would establish, the work it is to do? To educate, it is said. And if this word *educate* could at once be reasoned out of existence, good as is the service it may possibly have done in its day, it would be a long step toward the better understanding and the better doing of our work. We have been so long familiar with the phrase—to educate faculties, to lead out, to develop, to unfold faculties, that we come to think that what we have to do is to sit down beside our victim with the proper instrumentalities for e-du-ca-ting, pulling out, dragging out, any way to get out his faculties. It would be an interesting sight to observe a person who entertains this idea, in that fulness in which it is often sought, in our Normal Schools, to be inculcated, sitting down beside an acorn, or an oaken twig, and racking his brains after the best methods of e-du-ca-ting its twigs and swelling its trunk into larger proportions.

In the days when chemical science had just started into new life, it became necessary for medical writers to forewarn their readers that *digestion* was not maceration nor chemication, but *digestion*—an operation of vital forces, and to emphasize the principle, *vis medicatrix naturae.* Even agriculturists had also to modify the first ideas of Liebig, regarding the supply of nourishment to plants, recognizing more and more the peculiar nature of vegetable life, and the necessity of calling forth its activities, instead of doing away with the necessity of such action. And fertilizers are now not administered ready dissolved nor even easily soluble, but rather in insoluble compounds, that only vital forces can separate and appropriate. Men have in these days learned from experience and observation that the action of vital forces within the tree is the main dependence for the enlargement of its body and the multiplication of its branches, the production of its larger vital forces which are, in turn, to be transmitted. They have learned that their chief office is to stimulate these vital forces, and place within the reach of its organs the materials which these are to use in building themselves up. Let us think a little slowly and see what are the facts that induce mental activity, and thus the increase of mental power. Let me set forth, for a moment, great things by small. In my work in Toledo, I had a large room where I brought, at certain stages of their work, several classes of the same grade, and gave them common tests—in simple matters but necessary ones—the writing and adding of numbers with rapidity and exactness. The pupils of the older teachers used to stand at 90 per cent:, or 95 per cent., those of the new or inexperienced teachers stood at 30 per cent., or 40 per cent. After this exhibition of what the schools of the older or skilled teachers could do with the same opportunities, since the classes came from the grades below to these teachers at the same time, the new teachers and their pupils could, and usually did make as much progress in their work in the two weeks following these tests as they had done in four or even six weeks before this lesson. The teacher was not so much taught how to do her work, as she and her pupils had been placed in a new atmosphere, with new but natural stimulating influences.

Every one can see that this personal, concrete lesson has been worth a dozen abstract arguments, however persuasive the Superintendent may think these arguments ought to be. Inside of the new teacher and her pupils have been compactly and firmly established a high order of sentiments.

1. The strongest possible motives for effort have been presented to them in the most forcible of methods—example and contact with the fact. These low-percent schools stand related to these high-percent classes, as fellow-pupils—social instincts are awakened. 2. The certainty is impressed upon them that a standard may be, and will be exacted for promotion along the course—personal interest is awakened. 3. These other pupils have only our capacities, and they have done twice our work in the same time. If they can do it, we can do it. Confidence has been inspired. Finally, I *must*, I *ought*, I *can*, ripen into a very potent *I will.* And now with opportunity, and wise direction, we have in our system the elements of success. The rain and the sunshine have bathed the latent possibilities of the acorn, and if the materials on which its powers may act, are present in the soil, and these conditions continue, we shall, in good time, have an oak.

Let me illustrate further by a mere reference to other facts. We send our daughters to various musical centres in Europe to make them *prima donnas.* Why not transport the teachers here? We should not succeed. We never did succeed in making prima donnas thus. When we have become earnest for success on a larger scale, and to organize musical choruses here, we have set to work to create musical centres here—in Boston—in New York—in Cincinnati. We shall make progress in the production of artists here, in proportion as we build up art centres here, create art atmospheres here. Some of our cities are making this effort regarding music, the art of design, carving, pottery, and perhaps in other directions.

For still further illustrations of my thought, study the influence of the musical culture attained in such communities as the Yorkshire cities, an influence so potent in quickening the growth of the musical faculty in their people, that writers on heredity are almost ready to claim that the musical faculty, such as it is now known there and in other such communities, has been created as a new faculty within a few centuries.

Study also the secret reasons why the great seats of learning, like Oxford, Cambridge, Yale, and Harvard, like Eton, Rugby, and Exeter, are so successful in the production of great scholars and great men. How largely it is all due to the traditions, the sentiments, the character of the great men that still linger within the walls, and grow there as the characters are expanding elsewhere. That is a saying that you cannot make an accomplished weaver out of a South-of-England farmer, while the Flemish child takes as naturally to the formation of beautiful fabrics as a duck takes to water. The stimulus to this effort operates on him from his cradle.

If these considerations serve their purpose, they are drifting us toward my first proposition, namely, that the first essential requisite of a good system of public schools is such a quick and energetic public sentiment regarding them, as shall furnish a constantly-operative stimulant in all classes who are to be included in the effort to educate.

The influence of a portion of a community will do much. A really-inspiring teacher will often leaven the maturer elements in his school, so that great vitalizing power will speedily manifest itself, and thus the high school will often be, and it should be always, a wonderfully-quickening influence over the schools below. But all the forces of society should be so organized and directed as to work to this end. As well expect the acorn to germinate in the frozen soil or the oaken twig to grow there, as the most studied system to achieve success in educating the youth of a community which disparages the work of educating the individuals of the community.

All this means simply that man is a social being. His motives for action arise out of this pregnant fact. The quality of his acts, as good or bad, have reference mostly to their effect on society. Their quality as wise—promotive of his own best good,—or foolish—tending to his personal disadvantage, depends largely, if not wholly, on their tendency to bring him into advantageous relations with the social activities around him, or the *contrary.*

The strength of every state in reality, of the Roman State, *e. g.*, grew out of the wide recognition of this equality of privilege and interdependence of interest among Roman citizens. Its downfall resulted from the sharp contrasts, arising out of the limitations of this idea to the Roman citizens alone. The sin of the Middle Ages, resulting in the moral and intellectual death of the race for 1000 years, consisted in the effort to nourish the few into splendid conditions, while the many were left to breed pestilence, both moral and material. The Church, *i. e.* the whole social life in that case, was built on the suppression of the individual. It would have been just as wise to try to build a state or a community on the policy of stopping the physical growth of the masses in infancy, and making a nation of dwarfs, except as to the few. A true society requires the use of all the intellectual and moral powers of its constituents, as its defence and industries require their full physical development, and it is as ill provided with the best it could have, without this.

The first divine designation of man was that he is a being not fitted to be alone. The continuance of the race is conditioned on his *relations* through sex. The same law of dependence is established by the meting out to individuals, not all the faculties necessary for attacking nature from every stand-point, but distinctive faculties, fitting him to do distinctive parts of the work required to supply the expanding wants of the individual in society.

The growth of each individual toward perfection in society, is conditioned on the growth toward perfection of *all* the individuals constituting society. A man can fashion a bow, and a fishing-spear for himself. But let him even start towards civilized and cultured conditions, and he at once requires the aid of increasing thousands of his fellows in proportion to the number of steps he takes in this progress. He can here fashion one or two things that he requires, and if these are to approach the perfectness of form or of adaptation to use required by a highly-civilized man, he can only make one or two of the ten thousand things he wants. Ten thousand other men must be raised up around him to make good bread for him, which he cannot make good, and which a coarse, uncultivated boor cannot make good for him, to work up his wools, and cottons, and linens, and silks into articles of taste and comfort, to plan and construct his house, his furniture, his harnesses, his carriages, his cars, his steamboats, his books, his newspapers, his pictures, his statuary, his telephones, and telegraphs.

If a man is content to eat coarse, unsavory food, and to live in primitive houses; in other words, if he is content to live a half-civilized life, he may afford to see but half of his community civilized, able to use their possible skill to administer to his wants. But in making the individual, as to his ability to supply his own higher wants, only the ten-thousandth part of a man, the creator has made each one; as to his capacity to enjoy and his ability to possess the means of large and full happiness, ten thousand men in one, by this very arrangement.

But all this is conditioned on the individuals' working in harmony with *the laws of* man as created and as existing from the hand of God, who *made man and not a* man, but man as consisting of the interdependent individuals required to compass the general purposes of society, as no individual man is capable of doing. The branch of a tree is nearly as complete of itself, as a man is complete and self-capable in and of himself·

Ambitious, that is wicked, that is unwise, men always strive to run away from this thought, and to gain satisfaction through relative superiority, instead of through absolute excellence.. Relative superiority may be reached by pushing or keeping others down, and the happiness secured in this way may be enjoyed in as high a degree in the wigwam, or among Chiffoniers, as in the palace, or among commercial kings. But absolute excellence and its enjoyments, as we have shown, come only through the general excellence attained by the community, and this may be as well enjoyed by the million as by one. While that happiness derived from mere relative excellence can only be enjoyed by one or few in each community, and the accidental success of a rival gives a death-blow to the happiness thus derived.

Christ's *Our Father* expresses the central thought of his philosophy. *All ye are brethren*, intends to announce this interdependent brotherhood of the race. This brotherhood is not a sentiment. I am not speaking of social relations, but of utilities in society. It is a fiat interwoven into the nature of man. It cannot be run away from, and, I repeat, that the recognition of this fact, announced at the creation, is essential to the proper operation of a public or common-school system. It is the soil of which must spring all the tribes and generations of thought, the motive, the enthusiasm, the warming, vitalizing public opinion in which such a system is to live, move, and have its being. Out of this idea must grow its course of study. Not all knowledge, not all skill is requisite or possible to a man, to the individual. They are in the aggregate requisite and possible to man, to society, as made up of men, of individuals. Our system of education, which should embrace, as a science, the full life of the man, must seek the realization of this breadth of knowledge and skill in society. The *public schools* are to deal only with the underlying generalties of this effort, those certain essentials—in great part instruments—that sustain a common relation to the activities that are to be largely differentiated in the *upper* departments of an educational system; our colleges and professional schools, our apprentice system, and in the still higher departments of that educational system, the locomotive platform, the workshop, the forum, the studio, professional life. Our ideas of an educational system will yet, must yet, embrace all this in the public mind, before we can adjust even our elementary schemes to their work, and be content with this adjustment.

This carries with it the thought that the fiat that planted these facts in the constitution of society—man—provided the fact, also, which every philosophical educator must sooner or later have discovered, that while not all knowledge or skill is requisite or possible to each individual, as a contributor of his part to society, so the acquisition of all knowledge or skill is not necessary to the full development or perfection of any individual man. A man is perfect not when he can do all things well, but when he can do all *his* things well. The mechanic may be perfect as a mechanic, an *original, intelligent, inventive* mechanic, a *man*, without a knowledge of Greek. The same may be true of a physician. The Greek and Latin *professor* cannot see how a doctor can know the uses and diseases of the *acetabulum* without knowing the etymology of its name. Yet his vaporings on this subject disturb but little the scrutinizing judgment of the physician *educated* in the large requirements of his science. I need not stop here to say to my acquaintances that I have always advocated a classical education in proper cases.

The thought I have tried to develop emphasizes to imperativeness the responsibility of each recipient of the benefits of this organized thing we call society, to contribute his full share to the uses and pleasures of that society, and to fit himself for doing this. Each man owes this to himself, and to his own family for whose happiness he is directly responsible; since only through a perfect *society*, all of whose *parts* are performing their distinctive functions to perfection, can the individual or the family arrive at their best and safest conditions, their true conditions of individual freedom. The physician, *e. g.*, must burden himself with a proper course of preparation to perform properly his offices to me, or I suffer, my family leave me for the grave. *I* must exert myself to instruct his children well, or he suffers. But each parent and citizen also owes to all the interests in which he is concerned to see to it that other individuals that make up society are educated also. The individual has no right to refuse his part. Society has a right to insist on it, and has no right to fail to insist on it, or to neglect its duty to provide for and foster this preparation.

But this imposes burdens on us all. Yes, and why not? The shortsighted novice in music curses the restraints which philosophy imposes upon him. But the philosophical teacher knows that only by a knowledge of the laws and principles of his art, and by a system of discipline and restraint in conforming with these laws and principles, can he arrive at that rapturous freedom in the exercise of his art which characterizes only the greatest masters. He knows that these masters have unbound *their* clumsy fingers and their halting faculties only by possessing their minds of the great laws of order and agreement of things, by becoming acquainted with the true nature of the things with which they have to deal, and through such discipline and mastery as bring mind and fingers into accord, when bodies of musicians are to act together on the great masterpieces. The novice runs his fingers over the keys, and has *some* delight in his ability to make a savage noise. The artist lives a large life of freedom, of power, of pleasure, in a high realm of law to which he has climbed through self-denials and individual restraints. Only such masters of art and of the laws of art can act in freedom and in harmony with each other, and these can do it with rapture.

So the true philosopher will learn that only through this recognition of the true conditions of social progress, will he find himself and each of his fellows in the enjoyment of individual freedom, through the conformity of each individual interest to the general interest.

Had I time here to develop the relation which organized instrumentalities or *institutions*, as well as individuals, sustain to the growth or perfection of the greater organization—society—and thus this to the growth and happiness of the individual, the necessity that each *institution*, or grouping of individuals, and of working forces, should be rendered perfect in its relation to the distinctive purposes of each and the whole, would, I think distinctly appear. It would be seen that the burdens or restraints that any of these institutions impose on the individual, tend eventually to the lightening of individual expense in the effort to secure happiness and to the essential enlargement of individual freedom, or individual liberty possible to each. The restraints of a Sabbath, and its cultivating institutions, *e. g.*, are easily seen to contribute to the larger individual freedom hitherto only possible in this country as compared with that possible in some other countries.

The expense, as well as the restraints and self-denials, imposed upon different members of a community in the support of a system of public schools, have for a long time been dimly seen to contribute to that condition of things in which freedom is possible, and not only consistent with order, but tributary to the highest and securest order. The right of the State to tax men to support a system of public schools has been held to rest on the supposed narrow requirement of society for order as productive of individual freedom, such as ours in America. In the light of our argument, it may be seen that this single idea embraces all that the most religious and philanthropic man can ask a system of education to do, since it implies for its successful accomplishment, the free and full growth of the faculties of each individual, and the development in each individual of those desires for individual success, which render a man active in the performance of his individual duty.

The work of educating, then, no longer confines itself to the teaching of the three R's. It embraces preëminently the awakening of *ideas* and *sentiments* relating to success in life. The State, society is not alone interested in the mere *intelligence* of the individual, but much more in his relations to success in his special calling, not only that he may contribute his part to the civilizing instrumentalities, but as the only way in which his intelligence will lead him to regard order as requisite to his freedom to develop practical results, and the freedom of others to do the same. Society is interested in the thrift of each individual and it will demand that not only the knowledge and skill shall be developed, but that also those virtues which are essential to the securing of comfortable conditions, shall be inculcated in the schools, such as self-denial, prudence, temperance in the gratification of artificial or unnatural tastes, temperance in eating and drinking, a high regard for institutions and arts which promote culture and virtue, such as music, literature, etc. It will demand that above all a high sense of social justice and social responsibility shall be inculcated, to manifest itself in the effort, not only to present a pure personal example, but also to promote by other means than by example, pure characters in others.

Men stand aghast at the prophetic rumblings of an unreasoning and relentless communism, and well they may. It is a more serious thing, I believe, than many of us dare speak above our breath. I verily believe, and I am not constitutionally a croaker, that a more thorough study of this problem of public education, and the development of higher thoughts of Greek. The same may be true of a physician. The Greek and Latin *professor* cannot see how a doctor can know the uses and diseases of the *acetabulum* without knowing the etymology of its name. Yet his vaporings on this subject disturb but little the scrutinizing judgment of the physician *educated* in the large requirements of his science. I need not stop here to say to my acquaintances that I have always advocated a classical education in proper cases.

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Men stand aghast at the prophetic rumblings of an unreasoning and relentless communism, and well they may. It is a more serious thing, I believe, than many of us dare speak above our breath. I verily believe, and I am not constitutionally a croaker, that a more thorough study of this problem of *public education*, and the development of higher thoughts regarding it, than have ever prevailed, is our only safeguard against this communism.

A perverted system of religion has tried to content and to hold the masses through fear of the assumed power of priests to open and shut heaven, and through imaginary divine rights of single men to the obedience of these masses. These shackles have forever fallen from the necks of these masses. Machiavelianism has striven to repress these masses while in an ignorant, unreasoning, half-barbarous condition, by the superior cunning of the few. The wiles of this superior cunning no longer embarrass the multitude. Correct reasoning, and a greatly-extended power to reason correctly is, I believe, the only safeguard to society. To right reason there is no difficulty in the present conditions. With unreasoning passion to control the masses, the dangers thicken on every side, in proportion as the mere authority of self-constituted leaders ceases to be respected.

The teachings of our progress hitherto are exceedingly instructive to us, and wholly reassuring. Every privilege that has hitherto come to the masses, has given additional privilege and luxury, and even positive power to the privileged. The lightning speed of the railroad with its royal Pullmans, and the luxuries it brings to the rich man's table, are possible to these rich, only *because* they have so cheapened the means of travel and transportation that all may ride and may purchase these luxuries, thus making it an object to transport them to the rich. I can but hint at a thousand intimations that the privileged classes have nothing to fear, but all to gain, by the real progress in privilege and culture of the masses. I must hasten.

An exceedingly-important conclusion to which this thought is, I hope, directing us, is the certainty that the science of education is to be regarded as the highest science in the catalogue of important sciences, and that it is to engage the powers of the most vigorous thinkers of the day. This is a most manifest essential to the full success of a public-school system. This subject is to-day the largest human interest. It will embrace a much larger segment of our human life than this interest has been supposed to cover. It will go beyond the school-room into practical and social life. It will embrace a consideration of varied industries as a direct means of education in every community, and will add importance and interest to questions of political economy, such as tariffs and local manufactories. Its thorough development as a science will greatly modify our elementary courses of instruction. When the work of systematic education no longer ends with the common-school room, the *elements* of culture started there, will be better mastered, and the nervousness regarding the early ripening of these elements into so-called *practical knowledge*, will largely disappear, as also the distracting burdens imposed by this nervousness. If a boy cannot spell the words Psychology, Metaphysics, at the age of ten, *e. g.*, he will not be despaired of nor the system condemned, since he will be sure to know how to spell these words if his continued course of culture leads him into familiarity with the subjects which these words name, and since, if he is not so led, he will not be *regarded as an idiot* because he cannot spell them. Ditto regarding his practical knowledge of many other things which cannot be practiced in schools, and which special callings will render practical through the *practice* they require, and a practical knowledge of which would be of no use in other special callings.

Again, for I must hasten, in the coming public-school system, it will be deemed an essential that the minister of education will be a minister of education, and no longer a *mere* gatherer of statistics, having only the right to beg some third-rate legislator who has not the capacity to make a speech on railways or town taxes, to give a stray hour's study to this subject, that he may bring this hour's study to bear on school legislation in the single hour of its session which our legislatures now seldom find to devote to this *all*-important and worthy subject. But such a minister will hold a place on the floor of national and State legislatures, in this country as he does in England and her provinces, and in other countries, in order that he may present to these legislatures the result of his mature and life-long thought for the perfecting of the school systems of the country.

The true system will also come when the committee which has in charge the matter of presenting subjects for school legislation will no longer be exclusively made up of yesterday's farmers or lawyers, who have given the subject no time or attention, but who, of course, have confidence in their abilities to solve all the intricacies of the subject in just proportion to their want of acquaintance with it. The time will come when a standing committee or State Board of Education, made up of the best practical talent in the land, educators and others, will have the power to present measures for the action of the legislature, after a long and mature study of the subjects.

But, if all this is true, or half of it, a most essential requisite of a public-school system is a full man or woman to conduct it and instruct in it. The new citadel of safety will be manned with wisdom and girt about with strength. Instead of its work being committed largely to girls and boys without reasoning power, original or acquired, or to martinets trained in special schools or narrow experiences in school-room life alone, the people will call to their aid, especially in our larger cities, which ought to lead in the matter, a body of large-minded, level-headed, thorough thinkers, cognizant of the great wants of the age, with the great tendencies of the age, and capable of moulding the system, establishing its practices, and linking its work on to the daily interests of society.

This carries with it several important particulars as essential to the procuring such talent and ability for the work. The chief essential here has already been referred to as necessary to the internal working of the system itself, and that is such a warm social interest in the matter as will direct the best and most cultured minds to assume and maintain an interest in this work. But culture can only result from cultured surroundings, as we have shown. Hence one of the most essential requisites of the coming system is such a social position for the teacher, as will render the highest culture available in the schools.

There is no use criticising the teachers of our schools for their shortcomings in matters pertaining to the formation of character, and of deploring the want of power in their schools to eradicate the grounds of fear from communistic tendencies, and the dangers of ignorance and prejudice, so long as teachers are taken so largely from classes whose narrow means force them to adopt teaching to gain their bread, and are then denied such social recognition as will alone occasion that cultivation of the graces which give power to hold the best born to their best level and to raise others toward that best level.

We may say this will impose impossible burdens on the well-to-do and cultivated portions of society. Very well, it is the price, as I believe, of their safety from vandalism with which the world is threatened. If these persons think that the proclamations of pulpits, which few people hear except those who are almost as safe as the preachers themselves, will save society without the thorough education of the people, or if they think they have the Machiavelian *cunning* to maintain themselves against the power of ignorance and prejudice, it is for such to take the responsibility of their theories. I believe, and therefore have I spoken. If a system of education, and not kingcraft, is to be relied on, it must be a system intelligently directed to its purpose and intelligently conducted. Any other is a useless expense because it will fall short just at the critical points of service.

1. The first essential then of a public-school system, is a warm public sentiment in favor of the education of all classes of society.

2. Essential to the full development of this sentiment is a full recognition of the dependence of individual progress and freedom on social progress and on that freedom in society that comes only through reason and culture; in other words, the interdependence of all individuals for the means of happiness and culture on the culture of the individuals surrounding them.

3. This recognition will develop the idea of the essential necessity that the science of education be regarded in society as the most worthy and the most important of all sciences, and this without detracting from the worth and importance of any science; the idea also that the best thought of the age must be brought to bear on its principles, its methods, its practical applications as well as on the framing of laws for the accomplishment of its ends.

4. In the light of our reasoning we also see that an essential of a good public-school system is such a body of thoroughly-devoted men and women, thoroughly educated to teach and to train youth for practical success, and thoroughly cultivated to form true character, as can only result from a royal and cordial sympathy with these grand purposes sought through the education and culture of all classes.

Besides this you have under the lead of Jefferson and the other fathers, pronounced for the enfranchisement of all classes of men on a general conviction of its necessity for the purposes of good order and good government. We but seek to add to this general notion, that natural incitement of essential interest, which is the heaven-ordained incentive to all human activity, and is not only, in its proper action, consistent with the general good, but it is the only true promoter of the general good.

Under a peculiar condition of intellectual activity we have revolutionized or evolutionized several of the sciences, and have set their new forces to most practical work, all within forty or fifty years. We have converted religion within the same time from a system of dogmas, and from what was largely a scheme of priestcraft and kingcraft, to its original purpose of forming the characters of men for the uses of a high order of society. Both of these efforts have tended to enlarge the privileges and improve the condition of the masses of the people. Have they injured or humiliated the better few? Shall we, with these lessons, continue to distrust intellectual and moral forces, as the Middle Ages did, and still largely cling to gibbets and dungeons to secure safety to society?

The time seems most propitious for the consideration of this subject. The popular feeling in all parts of the country is tender, fraternal, and patriotic in an eminent degree, this feeling having culminated into expression through a providence that points strongly in the direction of our thought. Our hearts are magically knit to the heart of a man, who, like a larger number of our great and useful men than ever before, has lifted himself out of what are called the lowest walks of society, into an honorable quality of life, in which all acknowledge a sensible personal interest. This peculiar expression of feeling, so spontaneous, so personal, so universal, is the index to a great civilized and civilizing human interest in all of the great capabilities of our race, a recognition of their use and serviceability to each man of us and to all men.

May we not, then, in the midst of the inspired and inspiring thought and work of our generation in the way of conquering to the use of men, the wonderful forces of the outer world, assume that we are ready, at length, to welcome, in the fulness of its benevolent and practical design, this higher inspiration to establish a truer social system, founded on no fiendish desire to level men down to a common death of all individuality but on the supreme effort to level ourselves and all others up through opportunity and encouragement, through a recognition of the fact that the perfect conditions of all the parts, and that the true interests of the individual are attained only through the perfection of his larger self, society.

So let us build for the State our ship
Laying each block upon the slip,
With royal purpose and royal will,
Let us fit, with energy and skill,
Whatever timbers grow around,
Covering *all* this hallowed ground.
Timbers of chestnut, and oak, and elm,
Into gliding keel and governing helm.
But follow well this plan of mine,
Choose the timbers with greatest care,
Of all that is brash and frail beware,
For only the well-knit, sound, and strong
To this vessel shall belong.
Cedar of Maine and Georgia pine
Here together shall combine
A goodly frame and a good fame
And the Grander Union shall be her name,
For the day that gives such ship to the sea
Brings us larger and safer liberty.

The Secretary then read the following invitation:

JAMES H. SMART,
PRESIDENT NATIONAL EDUCATIONAL ASSOCIATION,

Dear Sir: Please make the following announcement to the Association:

1. The High-School building, corner of Washington and Mitchell, is kept open during the sessions of this body. In it can be seen specimen work of the Atlanta schools—also specimen work in drawing by the Cincinnati schools—All teachers, and persons interested, are invited to call at any hour of the day during the week and examine these specimens.

2. At 5½ o'clock this afternoon carriages will be at the door of this building for the purpose of giving members of this Association a free ride through the principal streets of the city. All teachers so desiring will please occupy and use these carriages at their option this afternoon at the hour designated. By request of Committee.

The Secretary then read the following letter from the Hon. JAMES S. ROLLINS, of Missouri, a life member of the Association.

COLUMBIA, MO., JULY 17th, 1881.

HON. JAMES H. SMART,
President of the National Educational Association,
Atlanta, Georgia:

Dear Sir:—I am a life member of the "National Educational Association." The condition of my health prevents me from attending the annual meeting at Atlanta this year. I beg through you to address a few words to the members of the Convention upon a subject, in my view, of very deep importance to the people of the United States. I sympathise most heartily in the objects of the Association, and have from its first organization. Thus far, it has accomplished great good in awakening a profound interest upon the subject of Education throughout our entire country; and properly conducted this good influence will continue to spread, and be felt until it reaches the remotest parts of the Republic.

The future welfare of the people, the permanency of the Government itself, greatly depend upon the moral, and intellectual culture of the masses of the people. Ignorance is alike the great foe to human happiness and to free government. The remedy is to establish and encourage all those agencies which are calculated to educate, enlighten, enlarge, and liberalize the knowledge and opinions of our countrymen. More especially, to encourage and strengthen the public-school systems as they exist in the different States of the American Union. To do this, the Government of the United States should continue the liberal policies heretofore pursued, in making contributions for the Education of the people of the different States:—There is a source *thus far* of never-ending supply to meet these wants:—the great inheritance which has come to us, in the Public lands belonging to all the people of the country,—properly guarded, and husbanded, and the interests of the proceeds of the sales thereof annually distributed for Educational purposes, according to the rule of Federal Representation in the Congress of the United States, fortified by the aid which will be furnished by the States themselves, presents to us a scheme of Education and enlightenment never enjoyed by any other people in the history of our race.

So far as this policy has been pursued it has worked well in the different States:—and in its *enlargement*, commencing with the passage of the law of Congress, approved July 2nd, 1862, and of which Mr. JUSTIN S. MORRILL, of Vermont, (now United States Senator MORRILL,) was the author and chief advocate, making further appropriation of the proceeds of the sales of the Public lands for the benefit of the Agricultural and Mechanical Colleges, established by the several State Legislatures, and which passed both houses of Congress by large majorities, gave an *impetus* to Education never before experienced in our country. A Member of the 37th Congress, I *voted* for, and was an *earnest advocate* of the passage of that Bill, and since that time I have strongly urged before the people, and in Legislative bodies, the policy of dedicating to the Education of all the people of the country the proceeds of the sales of the Public lands, and making this the policy of the Government for all future time, permanently saving to the *Preëmptioner* and the *Homestead* the rights now guaranteed by law. Since that time several Bills aiming substantially at the same beneficent object, have been introduced either into the Senate or House of Representatives, and a number of them have passed either the one or the other House, by large majorities—but from various causes have failed to receive the concurrence of both houses, and were thus prevented from becoming law. Only at the last session of Congress such a Bill passed the Senate by an overwhelming majority, but for the want of time and the pressure of other important measures, failed to be considered in the House. Such a policy becoming uniform, and firmly pursued, disposes of the Public-land question, and for the greatest and most beneficent of all purposes, the Education of the whole people, and to *whom they belong!* They are thus withdrawn from the fraud and scheming of log-rolling politicians, of private adventurers, lobbyists, and speculators; of monopolists, and land-grabbers, and all the host who lie in wait and fatten upon the spoil. All such, with their aiders and abettors, will misrepresent and oppose such Bills to the bitter end. But the policy once established takes away from them their last chance in the way of the Public lands.

The "National Educational Association," at a number of its annual meetings held heretofore, has passed Resolutions recommending to Congress the adoption of the policy herein recommended. There could be no more propitious time for renewing and pressing this enlightened policy upon the Congress of the United States.

President GARFIELD, during his long and able Congressional career, has forwarded and advocated all measures for the better Education of the people:—a fine scholar, liberally educated himself, an enlightened Patriot and Statesman whose sympathies go out to the masses of the people, and his valuable life at this trying crisis to our country, mercifully preserved by the interposition of ALMIGHTY GOD, the enlightened friends of Education have every reason to count upon his earnest co-operation in the passage of such laws as will shed light upon our countrymen, and enable them better to appreciate and understand the principles upon which rests the foundation of that Government, intended to secure the blessings of liberty to ourselves and to our posterity through all coming time.

I commend through you to the Members of the Convention the passage of the Resolutions which I transmit herewith to you.

RESOLUTIONS.

"This Association, deeply impressed with the thought that the best and surest way to preserve the happy form of free Government under which we live, and to promote the well-being and happiness of all the people now and hereafter to inhabit the United States, is to provide ample means to establish and maintain a system of training and Education, whose advantages will be extended to the children of every State that may constitute a portion of the American Union; and that to provide such means in furtherance of this great and beneficent object at the least possible cost to the Taxpayers, that the proceeds of the sales of the Public lands now and hereafter to be owned by the people of the United States shall forever be sacredly dedicated to their Education; and to meet this desirable object the Convention of the National Educational Association, now assembled in Atlanta, Georgia, composed of delegates representing the public sentiment of every portion of our great country, have adopted the following resolutions:

Resolved, That this Convention recommend to the Senate and House of Representatives of the United States Congress the passage of a law, setting apart the proceeds of the sales of the Public lands in all future time to the Education of all the children of the United States, to be distributed according to the ratio of Representation of the different States in Congress; that said proceeds of the sales of the Public lands be safely invested in United States securities, the interest thereon to be annually distributed among the different States, according to the rule above designated, and to be expended under the direction of the law of Congress, in maintaining such a system of *free* Public Schools, as may be established in the different States; devoting such part of said fund to the support of *Normal Schools*, established for the Education of Teachers in the different States, and to such Institutions now established, the "leading objects of which shall be to teach such branches as are related to Agriculture, and the Mechanical Arts, and Mining, in order to promote the liberal and practical Education of the industrial and laboring classes in the several pursuits and professions of life," as Congress may by law direct; provided that no such act abridge the rights of the preëmptioner or of the Homestead, as now guaranteed by law; and provided further, that in the distribution of the interest on said fund annually, for a period of not less than ten years, the same shall be distributed in the proportion of illiteracy now existing among the populations of the different States.

Resolved, That a Committee of one from each of the States represented in this Convention be appointed by the President to memoralize Congress upon the subject of the foregoing resolution.

Trusting that the proceedings of your body may be harmonious and successful, I have the honor to be, with very high regard,

Your Obedient Servant,
James S. Rollins.

The resolutions were, on motion of W: D. **Henkle**, referred to the committee on resolutions.

On motion of W: T. **Harris**, H. C. **Mitchell**, of Atlanta, was appointed postmaster.

N. A. **Calkins**, Assistant Superintendent of the Public Schools of New-York city, then read a paper on

THE TEACHER'S WORK IN THE DEVELOPMENT OF MENTAL AND MORAL POWER.

MR. PRESIDENT, LADIES, AND GENTLEMEN,
MEMBERS OF THE NATIONAL EDUCATIONAL ASSOCIATION:

In attempting to speak before this body of representative educators, assembled from all parts of this great American Republic, and especially to speak of the Teacher's work before an audience composed of those who have become familiar with the practical work of the school-room through successful experience under widely-differing conditions,—it is with the consciousness that the interest which novelty might once have added to my theme has long since passed away. And furthermore, the fact of the wide difference between the practical work of the teacher, and an imperfect portrayal of that work is before me in vivid remembrance.

And I am also aware that the wide range of a teacher's experience leads him to consider such a multitude of matters pertaining to his work, that he rarely sees or hears anything about teaching concerning which he has not already thought, and perhaps expressed his opinion.

Nevertheless, with the hope that even a statement of facts well known, and a repetition of ideas long familiar, may be useful in confirming some of my hearers in their own good views, and in giving others additional assurance that their work has been of the right character, and well performed, I now take the liberty of inviting your attention to that view of the teacher's work which specially belongs to the development of the pupil's mental and moral powers;—and desire it to be distinctly understood, that in this paper I leave aside the acquisition of knowledge as one of the aims of teaching.

Vegetable life exists in the unexpanded bud; but that life awaits the developing influences of warmth, light, air, and moisture, before its unfolding power is manifested through the delicately-formed leaves, and the beautifully-tinted blossoms which charm the eye and send forth their fragrance through all the air around.

Physical power exists in the slender muscles of the young child; but that power must await the developing influences that come to it through nourishing food, fresh air, and proper exercise, before it can manifest itself in those acts which are the result of physical strength.

Mental power exists in the untaught and untrained mind; but that power does not manifest itself until those influences which are adapted to develop its capacities of action, reach it through the several senses, and cause the mind to act upon things external to itself, and thus to produce mental strength.

Moral power, notwithstanding all the aid furnished by that innate guide which reminds us of the right, and warns us of the wrong, must be developed to activity by the influences that surround us and act on the emotions. The moral power is made strong by entertaining right feelings, and repeating good acts until they become fixed habits.

As in proportion to the extent of the favoring influences of light, warmth, air, and moisture, will be the completeness of the development of the bud into a healthy leaf, or into a productive blossom;—as in proportion to the proper use of nourishing food, sunlight, and air, and the employment of exercises appropriate to the development of the several muscles, will be the degree of physical strength attained;—so in proportion to the extent and activity of those developing influences which reach the mind through the several senses, and lead it to habits of careful attention to things, actions, and its own thoughts, will the mental and moral strength become so developed as to control the individual and exert upon all around that power which is the result of education.

The teacher can best attain the control of that power which comes through education by the observance of the laws of mental growth, and due attention to the *art of teaching.* Furthermore, the proper development of this power is chiefly due to the right influences that are brought upon the mind by the work of the teacher; therefore the degree of its strength, and the extent of its influence, will depend upon the methods of training that are employed, and upon the skill displayed in the use of them.

The laws of mental growth may be ascertained, and the art of teaching understood by means of the science of education. This science, therefore, becomes a guide for the development of mental and moral power. The science of education consists in a knowledge of those principles of psychology that account for the manner by which the mind gains knowledge. Its foundation extends down to the laws of our being and growth. It embraces the principles of physical, mental, and moral actions, and all suitable means for the proper development of the human being. *It is a standard by which methods of education may be tested.* As a science it tells us *what* education is, and *why* it is what it is. It treats of the nature of education, of its relations to mind and matter, and to the laws of our being.

To aid us in the better understanding of the character of that developed power which the teacher's work should secure for his pupils, let us first go to Nature and observe how she proceeds in teaching. While attempting to describe Nature's processes of training her pupils I shall take the liberty of using, in part, the language of JOSEPH PAYNE, late Professor in the College of Preceptors of London.

"The child takes notice of objects and actions, manifests pleasure or pain in connection with them, and indicates a desire or will to deal in his own way with the objects, and to take part in the actions."

We also observe that the child increases his bodily strength by *unceasing movements*, seemingly made for the sake of the movement, and as if this exercise constituted his very life. And we observe, further, that the same movements are made over and over again, and that thus the muscles and nerves learn to work together, and that physical power is the result. In a similar manner the impressions communicated to the mind through the organs of sense, excite those organs to activity, and thus cause them to acquire that facility by which the impressions conveyed "grow from cloudy to clear, from obscure to definite, by dint of endless repetition of the functional act." This exercise of the organs of perception brings the child into contact with the properties of matter, and initiates him into the mysteries of hard and soft, heat and cold, heavy and light, sweet and sour, and also into the many varieties of shape and color which objects present. Such are some of the conditions and activities of the child, when a pupil of nature, seeking knowledge by his own unaided efforts. He is simply teaching himself under the influence of nature, and this self-teaching develops his physical and mental powers.

"Long before the teacher with his apparatus of books, maps, globes, diagrams, and lectures, appears in the field, the child has been pursuing his own education under the direction of a higher teacher than any of those who bear the technical name. He has been learning the facts and phenomena which stand for words and phrases in the great book of Nature; and has also learned some of the conventional signs by which those facts and phenomena are known to his mother-tongue."

"Nature's earliest lessons consist in teaching her pupils the use of their senses. The infant, on first opening his eyes, probably *sees* nothing. A glare of light stimulates the organ of sight, but makes no distinct impression upon it. In a short time, however, the light reflected from objects around him, impinges with sufficient force upon the eye to impress upon it the images of things without;—the perception of the image is duly transferred to the mind, and thus the first lesson in seeing is given. When the same image is repeated to the mind, the child learns to recognize its form as a whole. Nature presents the child with material objects, and things already made or done, as a whole, not in parts, or elements. The child has no choice, as to the place to begin, in getting knowledge of them, and must learn things as they are presented. Nature ignores altogether, in her earliest lessons, the synthetical method, and insists on the pupil's employing the analytical."

The child-pupil takes hold of objects within his reach, conveys them to his mouth, knocks them against the floor, and thus discovers differences between them, and by performing such experiments, gratifies, instructs, and trains the senses of sight, touch, taste, smell, and hearing, The young child sees a bright and beautiful object close at hand—nature whispers—"Touch it—Find out what it is"—He puts his fingers into the flame, and burns them. Not being quite sure of the cause of the pain, he tries the experiment again, and learns an important lesson in the art of living.

During all this time who has taught the child? Nature—the child himself—practically they are one. She has given him no rules, no laws, no abstract principles, no formula, no grammar of hearing, of seeing, *walking, or talking; she simply* furnished the materials, and gave the faculty, and supplied the occasion for its exercise, and her pupil learnt to do *by doing*. This is what nature, the teacher did. Nature furnishes knowledge by object-lessons, and she trains the active powers by making them act. She has given the capability of action, and she develops this capability by presenting occasions for its exercise. Action, action, is her maxim of training;—things, things, are her lessons. She adopts much repetition in her teaching, in order that the difficulty may become easy, and 'use become second nature.' In physical training, 'use legs and have legs,' is one of her maxims; and she acts analogously in regard to mental and moral training.

"She teaches quietly. She does not continually interrupt her pupil, even when he blunders, by outcries and objurgations. She bides her time; and by prompting him to continued action, and inducing him to think about what he is doing, and correct his errors himself, makes his very blunders fruitful in instruction. She does not explain the difference between hard and soft objects, but says,—'Feel them';—between this fact and that she says,—'Place them side by side and mark the difference yourself';—and generally she says to her pupil,—'Don't ask me to tell you anything that you can find out for yourself.' She mingles lessons in physics, language, morality, all together. Her main business seems to be the training of faculty, the development of power."

Having briefly considered Nature's processes in education, let us now examine some of the modes of procedure by the teacher when the child enters the school-room;—that place above all others which should supply him with the very best opportunities for developing his mental powers, and for getting real knowledge;—knowledge that will be useful because it is adapted to assist him in the performance of life's varied labors;—and valuable because it is the means of developing the power of mind to increased ability for meeting every responsibility, and discharging every duty that may come upon him.

When the teacher receives the pupil from Nature's hand and leads him into the school-room, what is done to continue that development which Nature had begun so well? Does the teacher take up the great work at the point to which Nature had carried it, or rather led the young pupil, and conduct him onward in the same royal road? I leave this question to be answered by your own experiences,—each for yourself,—while I inquire,—What were your first lessons in school? Did those lessons have any relation to the things that you had learned from nature,—from the products of the field,—the trees of the forest,—the fruits of the garden,—the activities of the shop,—and the characteristics of animal and vegetable life? Were the powers that you had begun to develop by your own efforts in getting knowledge made still stronger by your earliest lessons in the school-room? Did you ever discover any possible relations between the names of the letters of the alphabet, or between those meaningless syllables—a-b, ab, b-a, ba, b-e, be, b-i, bi, b-o, bo, b-u, bu,—and the spoken language that you learned to use before you crossed the threshold of the school-room? Impossible! for not even the *echo* of sense could be heard in the sounds of such syllables.

Did your first lessons in school furnish answers to the child's oft-repeated questions,—"What is it?—What is it for?" Did your first lessons in Geography lead you to observe more carefully the hills, the valleys, the streams, ponds, and towns in the vicinity of your home, and thus prepare you to comprehend the features of other places, and countries which you had not seen? Did your lessons in spelling cause you to remember words chiefly by their position in a given column, or by means of a chance association with the preceding word? Were you told to learn rules in arithmetic first, and then to apply them to your examples? Did you ever puzzle yourself by trying to find some rule that would enable you to work out a question similar to the following:—What would twenty-five pounds of beef cost at twelve cents a pound, if one-third of it was bone? But I need not hold up these interrogative pictures of the past;—your own remembrances of early school scenes will enable you to continue this review—and it is barely possible that some children now in school may be familiar with similar experiences, and thus be able to furnish you the opportunity for observing the deadening influences of such exercises on the mind.

Perhaps some one who has no regard for nature's teaching may say, "It is no concern of ours to teach in school that which an observant and intelligent child would learn out of school." In reply it may be said with greater force, that it is our duty to train every child in school in such a manner that he will learn from nature, *out* of school, because he has acquired a taste for such knowledge by means of his lessons *in* school. Furthermore, it is our duty to teach him *how to learn*, and also to direct him to that which is important to be learned.

In order to set forth in a clearer light what is the legitimate work of the teacher in the *development of mental and moral power*, after the pupil enters school, I will endeavor to explain some of the terms employed in describing that work, and will state a few of the principles of education on which it should be based.

Teaching implies the proper guidance of the learner to the sources of knowledge, and training him in the manner of getting and of using knowledge properly. Learning is self-tuition. Teaching is superintending the processes of learning.

Training, in education, implies exercising the powers of mind in such a way as will give facility to its acts, and thus increase the quickness in perceiving, the readiness in remembering, accuracy in reasoning, and skill in doing.

The art of teaching implies skill in using proper methods, in accordance with the principles of education. Bacon said:—"Art is man's work added to nature's work." In teaching, art means the supplementing and continuing the work of development and education that is begun by Nature.

A principle of education is a general truth gained by an analytical investigation into the nature of the child as a thinking being. It is a law of the mind, and a rule of its action; and should be a guide to the teacher.

Development, in teaching, signifies a laying open of the subject by degrees, so that the pupil shall discover the idea, the fact, or the princple to be learned. The development, expansion, or growth, takes place with the idea, the thought, and the power of the mind; not with the things, nor the words of the lesson. *Ideas* may be developed; *words* must be given to the pupils. The *meaning* of words may be developed by enlarging the ideas which they represent.

Cramming, in teaching, is the opposite of developing. It is an imposition of ready-made results upon the child's mind. It makes the pupil's mind a passive recipient of matter forced into it; but does not increase real power. Cramming has nothing in common with the art of teaching, and it is condemned by the science of education, and by experience.

Among the important principles of education which intimately relate to the development of power, are the following:—

The action and reaction between the external stimulants—material objects—and the mind's inherent powers, constitute the processes of natural education—the influence of things upon mind, and of mind upon things, educates the child.

The mind, in its early stages of gaining knowledge of things, attends first to the whole; during later stages it subdivides the whole into its parts, and from particular facts infers general truths. It discovers facts by analysis, but transmits them to others by synthesis. The teacher should follow this natural order, leading the pupil to the fact by analysis, but requiring him to show by synthesis that he has gained it.

Repeated exercises of bodily organs give ease of action, and produce habits. Proper exercise of the mental powers gives clearness of perception and certainty of knowledge. Proper exercise of any bodily organ, or mental, or moral power increases its strength.

Right methods of education make the pupil an active *doer*, not a passive receiver. The mental acts by which knowledge is gained, are acts of the learner. It is what he does for himself—his personal experiences—that educates him, and not that which is done for him. The teacher can not think for the pupil any more effectively than he can sleep, eat, or walk for him. The teacher can only *induce*, stimulate, and awaken thoughts and desires that will lead the pupil to acquire knowledge. The true function of the teacher is that of a stimulator and guide of the learner, so that his work shall result in a systematic building of knowledge into the mind. He ascertains the need of the pupil, awakens in him a desire to satisfy it, then leads him to the sources of supply, and teaches him to help himself, both from nature and from books.

Ideas must be formed in the mind, and words given to represent them, before they can be expressed or communicated to others. The child learns by observation, examples, and practice, not by precepts, rules, or theory. Precepts and rules aid in remembering that which is learned by observation and practice.

Unknown objects and words can be illustrated and explained only by well-known objects and words. Therefore the teacher should start from that which is well-known to the learner, and proceed to the kindred unknown which constitutes the matter to be learned. By way of explanation it may be added here, that this early training of the child's powers, by means of the surrounding, familiar objects and acts, prepares him for understanding facts relating to kindred matters, which the prolonged experience of others have learned from nature. These experiences, having been tested repeatedly, and formulated into certified facts, truths, and science, should be presented to the pupil at the proper time, as the result of the labors of past generations, and as a shorter course than that by which the first learners attained the present state of knowledge.

It belongs to the teacher's work to divide the difficulties of the subject into proper steps, and thus enable the pupils to surmount them, one by one. It is also his duty to point out to them the facts which should be learned *first*, and then those that ought to succeed in their proper order.

Since activity is a prominent characteristic of childhood, and since the child likes to try to do what he sees others do, the teacher should provide examples of doing which may be imitated by the young learner. In every lesson, where it is practicable, let the pupils be given something to do with their hands, and required to describe that which is done.

To aid in the development of mental power put questions on each lesson in several different forms, yet make them definite. Shape each succeeding question with reference to the answers previously given, and also to the point to be gained. Do not attempt to draw from a pupil by questions what he has never taken in. See that the pupil has had the opportunity of gaining the knowledge before you ask him to show it.

Among the most important matters requiring the teacher's attention for the development of power, is that of *training pupils to do exactly what they are asked to do, in every school exercise*—no more and no less. It will cultivate habits of proper attention, of quick and accurate understanding, and train them to follow directions correctly, and to obey orders fully. Such habits become the corner-stone of excellent discipline—the key to success in maintaining good order.

Power is developed by unconscious tuition; therefore each teacher's own life-work should be worthy of imitation by his pupils. All his acts as well as his words should be truthful. Promptness, neatness, painstaking, politeness, and kindness may be effectively inculcated by deeds, even though the words spoken be few. With children, things seen are mightier than things heard; and example is tenfold more powerful than precept.

The development of moral power is based upon exercise of the emotions. The emotions that we entertain return to us again and again, until they finally remain, permanently influencing our conduct. Every action that we perform, every thought that crosses the mind, every emotion that we feel, is the beginning of what may become a habit, and a part of our character. It has been truly said—" A thought is an embryo action; give it time, and it will mature itself; entertain it, and it will return again and again, until at last nothing but a determined effort of the *will* can prevent it from acting itself out." Herein lies the real source of much of the wrong-doing in the world. Wrong thoughts are first entertained until, unconsciously, they gain the power to escape in actions, and society is astounded by some great crime. The thoughts that prepared the way for the bad act had been entertained until their accumulated strength overcame the resistance of a weakened will. No person is competent to say he will do a wrong act only once, because the doing of that very act once deprives him of a portion of his power to resist the temptation to do it again. So, on the other hand, each single manly resistance of an inducement or inclination to do a wrong act increases the power of resistance, and weakens the temptation, or desire to do it.

To impress those under our instruction with the importance of entertaining only *good* thoughts, and of acting from right motives, is our highest duty. Success in this is the greatest triumph that a teacher can attain. Training pupils in good habits of thinking and acting is of greater value to them than the learning of all that the best text-books contain concerning the whole circle of the sciences. The teacher's true work in the development of moral power is governed by the same laws as in the development of physical or mental power; and it consists in providing the means for such exercises as will increase the strength of this power, —and in so guiding the pupil that the proper exercises shall be taken. Moral power must be acquired by "*the doing.*"

From what has already been said it will be understood that my aim has been to show that true education is a development of power;—of power to see distinctly, and to comprehend;—of power to hear accurately, and to understand;—of power to observe, to compare, to think, to judge, to reason, to remember, to will, and to act rightly;—and that each variety of power can be developed only by and through the proper exercise of the appropriate organs. Seeing cannot be trained by hearing; the power to observe and compare cannot be developed by committing words to memory; the power to reason cannot be made strong by memory alone. The acquisition of knowledge and the development of power go forward hand in hand, when properly conducted. When the mode of acquiring knowledge is such as to cause a proper exercise of the faculty which should be employed in the process of getting it, the desired power is certain to follow.

In an excellent paper on "Teaching Natural Science in Schools," Prof. WILSON, of Rugby, describes the kind of work in teaching that will produce development of mental power. He says:—

"Theory and experience alike convince me that the master who is teaching a class quite unfamiliar with scientific method, ought to make his class teach themselves, by thinking out the subject of the lecture with them, taking up their suggestions and illustrations, criticising them, hunting them down, and proving a suggestion barren or an illustration inapt; starting them on a fresh track when they are at fault, reminding them of some familiar fact they had overlooked, and so eliciting out of the chaos of vague notions that are afloat on the matter in hand—be it the laws of motion, the evaporation of water, or the origin of sand drifts —something of order, and concatenation, and interest, before the key to the mystery is given, even if, after all, it has to be given. Training to think, must be first and foremost as his object. So valuable are the subjects of natural science intrinsically, and such excellent models do they provide, that the most stupid didactic teaching will not be useless, but it will not be the same source of power that the 'methods of investigation' would be in the hands of a good teacher."

It is proper now to consider if the training for the development of power should be of the same kind, and intended to effect the same faculties during all the stages of education. The answer to this important inquiry must come from the laws of development. By an examination of these laws we discover that there are periods of development for the mind, as well as for the animal and the plant; that during each of these periods the exercises should be adapted to those particular powers that come into activity then.

First Period.—The period of childhood up to *about ten years of age* is the one during which the senses are developing, and the perceptive powers are most busily occupied with surrounding objects in gathering facts, and the elements of knowledge from the eternal world, and in learning to understand and use language. During this period the teacher's aim should be to train those powers that are employed in getting elementary knowledge as a basis of future attainments in language, science, and art. Things, their properties, uses, and names, are among the materials that must occupy an important part of the time. This is the period for gathering facts relating to all surrounding objects; and the exercises for instruction should facilitate this end, and thus prepare for scientific investigations, during later periods of development.

Second Period.—The period from the age of *ten to about fifteen* is the time specially appropriate for giving attention to language and to the cultivation of memory. While the accumulation of facts should still form an important part of the teacher's work, great efforts should now be made toward forming habits of ready and accurate recollection, and the use of language. Special attention may be given to geography, history, biography, descriptions, compositions, and to committing to memory poetry and declamations, sentiments and quotations, as a means of storing the mind with gems of thought clothed in beautiful language, and of developing the powers of memory.

Third Period.—The period from *fifteen to twenty years* of age should be occupied with subjects that furnish exercise for the powers of reason, judgment, as mathematics, physical laws, logic, and the natural sciences.

In conclusion I will add,—knowing the nature of the being to be taught is indispensable to certain success in the work of developing power. Power, in education, comes by and through well-formed habits of careful observation,—of intelligent thinking,—of accurate description,—and of learning by doing.

Knowing *what* to teach, and knowing *how* to teach are two very different things. Knowing *what to teach* is a great attainment of knowledge. Knowing *how to teach* is the attainment of a great art.

As a means, therefore, of securing the desired development of power, attend first to learning the nature of the being to be taught,—then to what to teach, and to the art of teaching, and, with faithful labor and patient waiting, success will crown your work.

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On motion of W: A. BELL, of Indiana, the Association then took a recess of 7½ minutes.

The Secretary read the following letters:—

MORGANTOWN, W. VA., JULY 14, 1881.

To the National Educational Association,
Atlanta, Georgia:

Fellow-Laborers:—"On motion of A. L. PURINTON, Superintendent of Parkersburg schools it was ordered that * * * a letter of fraternal recognition of the National Educational Association, which is to meet in Atlanta during next week, be prepared by the Secretary and sent to that body."

In accordance with the above order I take great pleasure in conveying to your honorable body expressions of the hearty professional sympathy that we have in our common work and in your lead in this work.

Probably no one from West Virginia will be present at your meeting this year, but we shall retain our interest in your work, and hope to have a full delegation with you often in the future.

Wishing you a pleasant and profitable meeting, and as individuals a safe return to your homes, allow me to subscribe myself, on behalf of the Educational Association of West Virginia,

Yours in the work of Education,
T: MARCELLUS MARSHALL,
Recording Secretary Ed. Ass'n of W. Va.

ATLANTA, GA., July 20th, 1881.

To The Educational Convention assembled in Atlanta, Ga.

SIRS:—The Young Men's Christian Association of Atlanta—Rooms 49½ Whitehall Street—give you a cordial invitation to make free use of their Rooms while in the city.

The leading papers and magazines are on file regularly.

Respectfully,
WALTER S. LEWIS, *General Sec'y.*

CONCORD, N. H., July 12, 1881.

HON. J. H. SMART,
My Dear Sir:

I have rarely written so disagreeable a letter as this. I cannot be at Atlanta, and I regret, more than I can tell you, to inform you I rarely break an engagement and should not now, if it could be avoided. There are two bills in the Legislature, relating to education, which I must see through or defeated. There is another, relating to the celebration at Yorktown, which as Commissioner, I must look after. I should have anticipated this, but I did not. It is impossible for me to leave, as you will see, while the Legislature is in session.

I hope you may not be greatly disappointed.

Very truly, etc.,
J. W. PATTERSON.

MARSHALL, TEXAS, JULY, 18, 1881.

To the President and Members National Educational Association, meeting in Atlanta, Georgia:

Dear Brethren:—When I wrote you last year that if you could not come to Texas—to the South, that you should come nearer the heart of our great nation with your meeting this year; and when you decided to come to Atlanta I promised myself, if possible, to be with you. Since then I have confidently expected to carry out that determination, and was not willing to adandon this hope till to-day—not till this morning.

And hence, at this last moment, I am forced to say I cannot come. My engagements with this Company are such that my presence here is necessary, and this must be my excuse. I am glad to say that in the past twelve months Texas has not been idle. Her progress in material development has been surprising—beyond the expectation of her most sanguine and hopeful citizens.

She has also done much for her Higher Institutions of learning. Her Normal Schools, her Agricultural and Mechanical College. Also there has been passed the necessary legislation to secure the location, inauguration, and equipment of her State University.

I regret that I cannot report so flattering a condition of the Public Free Schools. A few towns and cities have already or are preparing to take charge of their schools. But the lack of sufficient funds, and an indisposition on the part of the citizens to tax themselves for the support of these schools retard the free-school movement.

It is quite a mistake on the part of some to write and to publish "that there is a lack of good teachers in Texas." Texas has as many good teachers as any State in this Union, has always had them, but the reason why they do not seek employment in the schools is found in "*the lack*" of remuneration for this kind of work. There is no vocation that pays less than teaching. I have before me the salaries paid teachers in one of the oldest and best-graded schools in the State and I give these as an evidence, as an argument why there are "*so few teachers in Texas.*" These figures are furnished by the Superintendent himself, and are $30, $35, $40, $45, $55, and $75 per month,—the Superintendent receiving only $100 per month.

When our Legislators, Governor, and parents shall consider the services of those who teach their children as valuable as the services of those who care for the bleating flocks and lowing herds, then if teachers cannot be found in Texas it will be time enough and well enough for those who make hasty tours through Texas to say there are no teachers here.

I am doing all I can, in my humble way, to help the educational interests of this great State, and I trust I shall be excused for differing so widely from those who have, heretofore, reported on this subject. I feel no little mortification when so large and so honorable a body as the teachers of this large State are so unwittingly misrepresented. These men and these women cannot "live upon stones"—the remuneration offered them will not purchase bread.

On motion of W: A. BELL, of Indiana, the Association then took a recess of 7½ minutes.

The Secretary read the following letters:—

MORGANTOWN, W. VA., JULY 14, 1881.

To the National Educational Association,
Atlanta, Georgia:

Fellow-Laborers:—"On motion of A. L. PURINTON, Superintendent of Parkersburg schools it was ordered that * * * a letter of fraternal recognition of the National Educational Association, which is to meet in Atlanta during next week, be prepared by the Secretary and sent to that body."

In accordance with the above order I take great pleasure in conveying to your honorable body expressions of the hearty professional sympathy that we have in our common work and in your lead in this work.

Probably no one from West Virginia will be present at your meeting this year, but we shall retain our interest in your work, and hope to have a full delegation with you often in the future.

Wishing you a pleasant and profitable meeting, and as individuals a safe return to your homes, allow me to subscribe myself, on behalf of the Educational Association of West Virginia,

Yours in the work of Education,
T: MARCELLUS MARSHALL,
Recording Secretary Ed. Ass'n of W. Va.

ATLANTA, GA., July 20th, 1881.

To The Educational Convention assembled in Atlanta, Ga.

SIRS:—The Young Men's Christian Association of Atlanta—Rooms 49½ Whitehall Street—give you a cordial invitation to make free use of their Rooms while in the city.

The leading papers and magazines are on file regularly.

Respectfully,
WALTER S. LEWIS, *General Sec'y.*

CONCORD, N. H., July 12, 1881.

HON. J. H. SMART,
My Dear Sir:

I have rarely written so disagreeable a letter as this. I cannot be at Atlanta, and I regret, more than I can tell you, to inform you I rarely break an engagement and should not now, if it could be avoided. There are two bills in the Legislature, relating to education, which I must see through or defeated. There is another, relating to the celebration at Yorktown, which as Commissioner, I must look after. I should have anticipated this, but I did not. It is impossible for me to leave, as you will see, while the Legislature is in session.

I hope you may not be greatly disappointed.

Very truly, etc.,
J. W. PATTERSON.

MARSHALL, TEXAS, JULY, 18, 1881.

To the President and Members National Educational Association, meeting in Atlanta, Georgia:

Dear Brethren:—When I wrote you last year that if you could not come to Texas—to the South, that you should come nearer the heart of our great nation with your meeting this year; and when you decided to come to Atlanta I promised myself, if possible, to be with you. Since then I have confidently expected to carry out that determination, and was not willing to adandon this hope till to-day—not till this morning.

And hence, at this last moment, I am forced to say I cannot come. My engagements with this Company are such that my presence here is necessary, and this must be my excuse. I am glad to say that in the past twelve months Texas has not been idle. Her progress in material development has been surprising—beyond the expectation of her most sanguine and hopeful citizens.

She has also done much for her Higher Institutions of learning. Her Normal Schools, her Agricultural and Mechanical College. Also there has been passed the necessary legislation to secure the location, inauguration, and equipment of her State University.

I regret that I cannot report so flattering a condition of the Public Free Schools. A few towns and cities have already or are preparing to take charge of their schools. But the lack of sufficient funds, and an indisposition on the part of the citizens to tax themselves for the support of these schools retard the free-school movement.

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Believing, indeed knowing, you will have a pleasant and profitable meeting in our Gate City of the South, I am,

Fraternally Yours,
ALEX. HOGG.

DAYTON, O., July 16, 1881.

HON. J. H. SMART,
President National Educational Association,
My Dear Sir:

The work of closing up the schools here and the succeeding intensely-hot weather have left me in such a debilitated condition that I am afraid to undertake the journey to Atlanta. I have had it in my mind to be there and to start early, but thus far have not thought it entirely prudent to make the venture. If I should feel stronger and the temperature abate somewhat I may yet be able to start from here so as to reach Atlanta as early as Tuesday. If I should be deterred from going altogether, it will be to me a matter of very deep regret.

Very truly yours,
JOHN HANCOCK.

The Hon. M. A. NEWELL, of Maryland, read the following paper on

REVISION OF THE COMMON-SCHOOL CURRICULUM.

Truth is always the same, but presents itself in different aspects to our eyes at different times and demands from us forms of expression which vary with the varying phenomena of the ages. The principles of education, if we could only grasp them, are the same now as they were when LOCKE, or ASCHAM, or COMENIUS, or QUINCTILIAN, or SOCRATES wrote or talked upon the subject; but the method of applying these principles, supposing them to be known, necessarily changed as the forms of civilization and forms of thought changed, from era to era, or from century to century. Our American system of common-school education in its present form, assuming that we had such a system, cannot boast of being more than half a century old; but in that half-century changes have taken place in the inner and in the outer lives of men so vast that in the earlier ages of the world, five hundred years would have been deemed too brief a period for their accomplishment. It is not strange, therefore, that at this period of upheaval many should be impressed with the conviction that the time has come when we should have a revised edition of our common-school system which is now entering upon its second half-century of life.

Like our forefathers, we are by nature and by training a conservative people, often clinging to the old because it is old, and rejecting the new because it is new; but we are not quite so conservative as our English cousins, who, if they dared, would make an idol of antiquity and fall down and worship the venerable goddess. In some parts of the United Kingdom may be found to-day in common use a plough which corresponds closely enough with the plough which VIRGIL photographed 1900 *years ago,* for the torture of school-boys in all succeeding ages. The

English railway carriage of to-day is but a modification of the travelling carriage of two hundred years ago; and though several murders have been committed in these carriages,—the opportunity and the temptation being furnished solely by their being constructed for the purpose of securing as much privacy as possible,—they still reject our American saloon cars which furnish no such opportunities or temptations, and cling to their seclusion as one of the Briton's chief prerogatives.

This tendency to reproduce with slight variations is as powerful in the world of thought as it is in the world of Nature, and the common school of to-day is in all essential particulars a reproduction of the school of one hundred, one thousand, or two thousand years ago. I beg to remark here, by way of parenthesis and apology, that when I speak in this paper of the common school, I do not speak of the common school of the New-Departure type, nor of the common school of the Oswego pattern, nor of the ideal common school so graphically described in the Educational Journals. I mean the actual common schools which at least two-thirds of our American children must either attend or get no schooling at all:—away from cities and villages, away from the superintendence of the HARRISES, and the RICKOFFS, and the HANCOCKS known to fame,—schools in the backwoods of Maine, in the rocky fastnesses of New Hampshire, in the rural districts of New-York, in the mountains of Pennsylvania, in the sandy dunes of Eastern Maryland and Virginia, amid the pine forests of the Carolinas, or the back settlements of Florida;—it is here that the boys are now going to school who, twenty years hence, will rule this country; and it is for them and for the country that I plead to-day.

In these schools the course of instruction adheres to the old traditions. First the *a*, *b*, *c's*; then the ab, ab's; then a little spelling and a little reading; then a little more spelling and a little reading and writing; then a trifle of arithmetic, and a few pages of geography and history recited to-day and forgotten to-morrow, and with this equipment the boy must take his post in the battle of life, for necessity beats the long roll and he must obey the call.

He knows but little, and that little is not of the best kind for the rough uses of life; but it is as much as his father knew, or his grandfather; and if it had been learned in the right way, he might find it enough for his purposes. But the improvers of our schools, recognizing the insufficiency of this equipment for the struggle of life resolve that they will do better for the younger brother than they had done for the elder, and so they make arrangements to give him more spelling, and more arithmetic, and more geography, and more history, and they add some slices of indigestible grammar with a seasoning of algebra. The first soldier had lead enough, but not enough of powder; and so they give the second one more lead to carry.

Lord Bacon is reported to have said that knowledge is power. Lord Bacon never said it; but the counterfeit has passed current so long that it is looked upon as genuine; and, under the delusion that knowledge of whatever kind and however obtained is power, men have seriously set themselves to cram children's minds with knowledge, thinking that they were thereby endowing them with power. It is not necessary to spend time in exposing so obvious a fallacy; there is power in a barrel of water, provided you have heat enough to convert it into steam, and the proper machinery to utilize the steam. What our young people need is not the water merely, but water plus heat; not knowledge alone, but knowledge plus the power to use and direct the knowledge. As coal and water become elements of power only when the coal is burned and the water is converted into steam, and as the power thus produced becomes useful only when there is the proper apparatus to collect, distribute, and direct it. So the knowledge of facts may be as inert as a scuttle of coal and a bucket of water in the hands of a housemaid, until we have mental heat to consume the fuel and mental machinery to utilize the power obtained. Our common schools should therefore aid the young people of the country not only in the acquisition of knowledge but in the acquisition of power to use that knowledge. And if we were obliged (as fortunately we are not) to choose between the profession of knowledge itself, and the possession of power to acquire and use knowledge, we should be obliged to prefer the latter. Fortunately, we are not obliged to take either horn of the dilemma, for when right knowledges are obtained by right means, the very act of acquisition ensures at the same time the highest attainable power to assimilate and use the knowledge—such power, however, being very different in different individuals. Whatever may be the original mind-power of any person the only known way to increase it is by the right use of the faculties upon right objects.

The complaint which I make against our common schools is that they fail to give power commensurate with the knowledge which they impart.

There is another reason why our common-school curriculum needs revision; and to comprehend it fully we must look back to the original school from which our present school has descended, according to the laws of heredity and with not more than the average amount of variation. I think the old Scotch parish school is the prototype of the American school. My friend from Pennsylvania thinks we should look for the original rather among the Dutch with whom the Pilgrim Fathers sojourned before embarking on their transatlantic voyage. If it were so, I am inclined to think that the Dutch borrowed from the Scotch, or that both borrowed from a common source. In either case my illustration holds good. The Parish School has but three regular classes. The Spelling class, the Testament class, and the Bible class. This seems simple enough; but as every American boy is brought up with the comforting assurance that he may one day become President, so every Scottish school-boy was a Preacher *in posse.* And as the entrance to the Sanctum Sanctorum of the church lay through the vestibule of the college, the education of every laddie was conducted on the hypothesis that he might one day go to college and in due time ascend the pulpit.

Now this evil has been transmitted to us in due process of inheritance. Our graded schools are arranged on the hypothesis that every abcdarian will in process of time graduate at the High School. We know that the hypothesis is absurd, and yet we allow our graded schools to be organized according to this absurd hypothesis.

The common school being thus regarded as merely a flight of steps leading by gradual approaches to the high school or college and university, it is evident that the steps would be made as few and as easy as possible. The question would be not how much can be taught that will be useful in life, but how little can be made to serve as a passport to the higher grade. Any deviation from the direct line would be considered an error or a folly; and the thoughts of teachers (if they thought at all on the subject) would be directed to the task of smoothing and shortening the road to the land of promise. As an illustration I may mention as among my own memories that no examination in Mathematics being at that time required for entrance into the University of Oxford, students were sent up and admitted who were ignorant even of the existence of the multiplication table.

Now that the common school must be looked on not as the portal of the university, but as the gate which opens on the highway of common life, it becomes a matter of the utmost consequence so to improve the years devoted to elementary education as to give the best outfit both of knowledge and power for prosecuting the great journey of life.

I hope I shall be pardoned for adding that there are peculiar reasons why the very best system of elementary education that philosophy has devised and experience approved should be established in these Southern States. When Damocles on awaking from sleep beheld a naked sword suspended above his head by a single thread, he no doubt prayed that the thread might be a strong one. Between us and anarchy or misrule there lies but a single bulwark of safety—the education of the masses. It behooves us then to take care that this bulwark be built of the best pattern and of the most solid materials. A very large proportion of the population will have little or no education except what these common schools give them. The State does but little for them, and part of that little is in the wrong direction; society does little for them; the family, nothing, or worse than nothing; the church does what it can; but without the school the church is shorn of more than half its power. Our main dependence, then, now and for a long time to come, must be on the school; and it behooves us to make the school so powerful an agent as in some degree to compensate for the inefficiency of the others. In a prosperous and highly-civilized community where police regulations are not needed, where social intercourse is so free as to prevent the introduction of more stimulating amusements, where buyer and seller find a reciprocal advantage in their dealings, where all can find work who want it, and those who are not compelled to labor work the hardest; where the church gathers all her children without exception under her sheltering wings; where the family co-operates with the State, with society, and with the church in their respective spheres, and performs, in addition, the family duties of training, instruction, and government;—in such a community, the common school may be a convenience, a labor-saving machine, but it can hardly be regarded as a necessity. But we have many communities where these conditions are reversed, where the State, the church, and the family notably fail of their duty to the children, and the whole work is therefore thrown upon the school. How strong, how wise, how active, then ought the school to be on which such responsibility is thrown, and from which such difficult achievements are demanded.

In a revision of the common-school curriculum the changes I would suggest may be embraced under three heads:—

I. The addition of new subjects of instruction.

II. A new apportionment of the old studies with regard to the time devoted to them.

III. A re-arrangement of the studies in the order of time.

I. New subjects of instruction.

1°. Christian morals. It would be foreign to the purpose of this paper to enter into details. I must content myself with saying that there should be daily formal lessons on *duty*, just as there are lessons on spelling and reading. The duties of children to one another, to the lower animals, to their parents, to their teachers, to their neighbors, can be taught as easily as the a, b, c's; and in certain conditions of society they must be taught in the public schools. The virtues of honesty, truthfulness, and purity should be inculcated not on occasions merely, but "line upon line, line upon line; precept upon precept, precept upon precept." If we had a text-book on the subject, it should not be after the pattern of the "Catechism Longer and Shorter" on which dry pabulum my boyhood's soul was nourished, but rather a selection of parables or moral stories which suggest subjects of conversation and discussion between teacher and pupils.

2°. For the older pupils, in continuation of these moral lessons I would suggest what, for want of a better name, I may call "moral and political philosophy." I do not mean the dry disquisitions of the text-books, but some explanation of such subjects as the nature and obligation of contracts, the rights and duties of citizens, the reciprocal duties of employers and employed, the relations of labor to capital, the nature of wealth, etc.; all of which is much easier understood and much more interesting than the definitions of verbs transitive and intransitive, or the difference between conjunctive adverbs and adverbial conjunctions.

3°. I would suggest as another common-school study, Hygiene, or the Laws of Health, not Physiology as it is now studied by advanced pupils, but a few simple, homely lessons, intelligible by the youngest children, on the Body and how to take care of it. I do not think it is of much practical use to unprofessional people to be able to tell the number of bones in the head, the number of ribs, the names of the various organs, their location and functions. I rather agree with SIDNEY SMITH who wanted to ignore his stomach and to forget he had a liver. But there are a few simple rules of right living, as regards the body, which children could be taught as easily as the multiplication table, and which it is equally essential for them to know.

4°. The revision will not be complete unless we add some form of manual industry. Girls should be taught needle-work, beginning with the simplest forms in the lowest class and carrying on a graded series of lessons to the very close of their school life. I wish I could dispose of the boys as readily. They need similar training, but the means of employing them are not so obvious. In many aristocratic English schools boys are taught to sew, on the ground that their career may carry them into the colonies at a distance from the conveniences of civilized life, and it might stand them in good stead some time to be able to mend a coat or sew on a button. How few of our High-School graduates are able even to make up a neat parcel and tie it securely! And yet this is a very useful accomplishment. I must confess, for my own part, that if the house were on fire while I was asleep, and my escape from a third-story window depended on my making a fire-escape by tying the bed clothes together so as to form a rope, I should certainly burn to death. And yet why was I not taught to tie knots as well as to extract roots? Synthesis has its uses as well as analysis.

II. The proposed revision includes a new apportionment of the time given to the usual common-school studies. I would rob *spelling* of three-fourths of the time ordinarily given to it; and for these reasons:—1st, learning to spell does not add to mental power; on the contrary it has a tendency to lessen it; 2d, all that is really useful in spelling can be learned in less than one-fourth the time now given to it; 3d, the time in learning to spell words which we cannot use is an unprofitable investment; 4th, if a man should spell a score or so of the words in common use according to his fancy and not according to Webster, his usefulness as a member of society is in no way impaired thereby.

2°. The English grammar of the text-books I would discard altogether from the common schools of which I am speaking. Grammar, logic, and rhetoric, the trivium of the middle ages, I would remand to the High School or the College where they properly belong. In place of grammar, so-called, I would give practice in speaking and writing English.

3°. I would cut off at least one-third of the arithmetic. The whole section on Vulgar Fractions should be expunged, with the exception perhaps of such manipulation of easy fractions as the demands of ordinary life may require. Our decimal system is amply sufficient for the common school; and it is not creditable to our common sense that we suffer children to be bewildered by the mysteries of "greatest common divisor" and "least common multiple" at an age when they would be better employed in reading Robinson Crusoe. Within my own experience I can point to hundreds of children who were deprived of the opportunity of learning some arithmetic that might have been useful to them by being obliged to leave school just after "going through Fractions." They could divide $\frac{2}{3}$ of $\frac{5}{7}$ by $\frac{9}{10}$ of $\frac{13}{14}$, and subtract the quotient from $\frac{8}{9}$ of $\frac{11}{12}$; but they could not write 105.05 had their lives depended on it.

History and geography I would abolish in name but not in reality. I would remove them from the list of lessons to be memorized at home, and recited in school; and make them part of a series of daily readings and conversations between teacher and pupils. From experiments which I have made in this direction I am convinced that a greater fund of permanent information will be acquired in this way than on the old plan; and the relations between teachers and scholars will be greatly improved.

III. There should be a new arrangement of the order of the old common-school studies. The traditional order is the alphabet, spelling, reading, arithmetic, writing, geography, grammar, history. A better order would be drawing, writing, reading, composition, history, and geography. I have not inserted the new studies, suggested previously. Their place has been sufficiently indicated. I have omitted grammar for reasons previously assigned. I have not mentioned spelling, because I assume that constant *writing* will teach the spelling of all words used in the reading-books, and in this way a habit of spelling by sight will be established, by means of which a new word once seen will be imprinted on the visual memory. This is enough for the common-school graduate. In the High School it may be necessary to make a special study of the spelling of unusual and difficult words, in order to pass examinations. I can hardly suppose it needed for any other purpose. We rarely try to write a word which we have not *seen*, and on those rare occasions a dictionary may be consulted.

I am well aware that the ladies and gentlemen who have done me the honor to listen to my tiresome story may be divided into two classes. One class says, "there is nothing new in what you have been telling us"; the other class says, "there is nothing true in it." I plead guilty to the first count; not guilty to the second. A friendly critic speaking of the paper read yesterday of a similar tenor (Mr. RICKOFF'S) declared that he had never heard so long a paper with so little truth in it. He will not be able to make that declaration again, for I think I have gone beyond my friend from Ohio in his own line. If there be no truth in the views advanced, is it not strange that such similar views should be entertained by two men of like age and experience, but differing in all other respects, one making his observations on the coast of Lake Erie, the other on the shores of the Chesapeake; one looking mainly to graded city schools, the other to ungraded country schools; the one considering principally the effects on schools as part of a great organization, the other the effects on individual pupils;—is it not strange, I say, that there should be so striking a coincidence, without any concert or conference, or without correspondence between them.

Finally, there may be a few who would grant that there may be some little truth in what has been alleged; but they will say, "What are you going to do about it"? Our teachers can teach as they are now teaching, as they were taught themselves, as their fathers and grandfathers were taught. They can not at once act upon these suggestions; they might not be able to learn a better way even if they tried. All that can be said in reply is: If the schools are to receive any improvement, it must come from the teacher. It need not originate with him; it may come through the State Superintendent, through the County Superintendent, through the Teachers' Institute, through a summer Normal School, but finally the impulse must be given by the teacher. No revision of our common-school curriculum *on paper* will produce any effect. There must be teachers intelligent enough to understand it, and powerful enough to execute it.

The Secretary announced that the Georgia Teachers' Association would meet in the Opera House at 1 o'clock immediately after the adjournment of the National Educational Association.

On motion of Jerome Allen, of New York, the three papers read in the forenoon were then discussed.

The discussion was participated in by W: T. Harris, of Missouri, M. A. Newell, of Maryland, E. E. White, of Indiana, J. D. Pickett, of Kentucky, Wm. B. Bonnell, of Georgia, A. J. Rickoff, of Ohio, and Edwin H. Fay, of Louisiana.

Further discussion was postponed until 11 a. m., Thursday, July 21.

On motion of the Hon. Gustavus J. Orr, of Georgia, the President appointed a committee of five to give expression to the feelings of the Association in reference to the assassination of James Abram Garfield, President of the United States. Committee: J. D. Pickett, of Kentucky, G. J. Orr, of Georgia, James Pyle Wickersham, of Pennsylvania, John Eaton, of the District of Columbia, and Hugh S. Thompson, of South Carolina.

The President appointed Wm. T. Harris, of Missouri, Thomas W. Bicknell, of Massachusetts, Wm. A. Mowry, of Rhode Island, Wm. O. Rogers, of Louisiana, Edgar A. Singer, of Pennsylvania, Wm. B. Bonnell, of Georgia, and A. Means, of Georgia, a Committee on Resolutions.

On motion of the Treasurer, Eli T. Tappan, the following were appointed Assistant Treasurers for this session: V. E. Orr, John W. Dowd, Sterling G. Brinkley, and Wm. B. Bonnell.

The Committee on Nominations reported the following-named persons for officers for the next year. The report was received, and the Secretary directed to cast the ballot.

OFFICERS FOR 1881-82.

President.—Gustavus J. Orr, Atlanta, Ga;
Secretary.—William D. Henkle, Salem, Ohio;
Treasurer.—Horace S. Tarbell, Indianapolis, Ind.;
Vice-Presidents.—1. William T. Harris, St. Louis, Mo.;
2. T. C. H. Vance, Lexington, Ky.;
3. E. K. Foster, Tallahassee, Fla.;
4. Wm. O. Rogers, New Orleans, La.;
5. M. A. Newell, Baltimore, Md.;
6. J. M. Fish, Little Rock, Ark.;
7. H. S. Jones, Erie, Pa.;
8. Hugh S. Thompson, Columbia, S. C.;
9. Josiah L. Pickard, Iowa City, Iowa;
10. John B. Peaslee, Cincinnati, Ohio;
11. John W. Dickinson, Boston, Mass.;
12. Jerome Allen, Geneseo, N. Y.
Counsellors.—John Eaton, Jr., Washington, D. C., } At large;
James H. Smart, Indianapolis, Ind., }
C. C. Rounds, Farmington, Me.;
Josephine E. Hodgdon, Concord, N. H.;

THOMAS W. BICKNELL, Boston, Mass.;
WILLIAM A. MOWRY, Providence, R. I.;
NORMAN A. CALKINS, New-York, N. Y.;
JAMES P. WICKERSHAM, Lancaster, Pa.;
SARAH E. RICHMOND, Baltimore, Md.;
WILLIAM H. RUFFNER, Richmond, Va.;
W. M. GRIER, Due West, S. C.;
STERLING G. BRINKLEY, Quitman, Ga.;
H. C. ARMSTRONG, Montgomery, Ala.;
H. D. WYATT, Chattanooga, Tenn.;
JOSEPH DESHA PICKETT, Frankfort, Ky.;
JOHN W. DOWD, Toledo, Ohio;
EMERSON E. WHITE, Lafayette, Ind.;
JAMES P. SLADE, Springfield, Ill.;
WILLIAM H. PAYNE, Ann Arbor, Mich.;
C. W. SMITH, Minneapolis, Minn.;
W. W. W. JONES, Lincoln, Neb.;
H. C. SPEER, Topeka, Kans.;
J. C. GILCHRIST, Cedar Falls, Iowa;
J. ORMOND WILSON, Washington, D. C.;
W. C. WHITFORD, Madison, Wis.;
EDWIN H. FAY, New Orleans, La.;
O. F. RUSSELL, Little Rock, Ark.;
ALBERT J. RUSSELL, Jacksonville, Fla.;
GRACE C. BIBB, Columbia, Mo.;
J. M. BARROW, Columbus, Miss.

Adjourned to meet at 8½ P. M.

EVENING SESSION.

The Association met pursuant to adjournment.

T. R. VICKROY, of St. Louis, Mo., read the following paper on

THE NECESSITY FOR SPELLING REFORM.

We are here to-night to consider the need of an improved spelling. The subject indeed may be trite and unpopular, nevertheless it is everywhere engrossing the attention of earnest and intelligent educators. The importance of the movement to reform English spelling is becoming better understood every day, and is steadily gaining in popular favor. From the nature of the case, even a moderate change in our word signs is attended with difficulty, and the public will accept an improved spelling only on clear evidence of its practicability and usefulness. It is our purpose briefly to place the facts in evidence.

Language grows, but growth is a process involving renewal and decay. The growth of language must of necessity differentiate new phonetic elements. In a living language there is a continual dying of old elements *and words* and the substitution of new ones. If the language is unwritten, such changes are rapid, as is seen in the varieties of merely spoken languages. But when language is written and becomes widespread through its literature, this process is retarded, though it cannot be wholly prevented. The language of an age crystallizes in the literature of that age, and the conventional form that it takes becomes the heritage of succeeding generations. The more widely such a people spread, the more tenaciously they cling to traditional forms. But each generation has new projects and new forms of literature. The old becomes obsolete, the reason of the old conventionalities is no longer felt, and hence archaic forms arise. Each generation loses the sense of some conventionality and introduces new ones peculiar to its own genius. As time rolls on the writing and printing which ought to represent the living speech differs from it more and more, until at length the language is clogged by unmeaning and ambiguous signs. Growth and decay have taken place, but the growth is not shown and the dead elements are not eliminated. A living word or element is clearly felt, but dead elements are corpses ready for burial, not guests whom it is our duty to entertain. The dead word should not take the place of the living sense. Now it is these dead forms in our language that impede our educational work. The mischief lies in their being regarded as sacred things. Day after day you may hear people howling, "Don't touch our good (?) old (?) spelling!" as if spelling were something over which we had no control. Our spelling has been reformed from age to age. If we compare the spelling of the authorized version of the Scriptures as printed in 1611 with the same version as printed in 1879, we shall find great differences in their spelling. For instance, the 106th Psalm differs in 116 spellings, and the first chapter of Genesis in 135 spellings. We thus see that while the spelling changes the language remains the same, and hence the prevalent opposition to an improvement of the forms of our words must originate either in ignorance or knavery. As Mr. GLADSTONE says: "Our spelling is to multitudes a huge fetish. It is true it never did any good and it does a very great deal of harm. We may feel, if we throw it overboard and do not respect it, that it may do us a great deal of harm, and so we fall down and worship it."

Now this feeling which is so widespread and so mischievous is akin to that out of which the revolting systems of pagan worship grew. To be convinced of this, one has only to study the origin of the myths of the nations. For instance, the word Fate (*fata*) originally meant what had been spoken, and before Fate became a power, it meant that which had been spoken by Jupiter, and could never be changed—not even by Jupiter himself. This is precisely the case to-day with regard to our current spelling. It is the god of this age that has blinded our eyes. We are spell-bound, virtually manacled in soul and spirit, and held captive by what we think is an unchangeable fate. But the spell is being broken, the age of superstition is passing away, and the charm of cabalistic words is losing its power as intelligence spreads among the masses.

Now it is the prime object of the Spelling-Reform Association to break this spell entirely. We have all shared it, and would no doubt continue to do so had not new light dawned upon us. Until recently even our great scholars were not conscious of the incongruities and wasteful inconsistencies of current spelling. The comparative study of the languages of the earth has unfolded certain laws of change and has brought into clear view the difference between language itself and the arbitrary symbols used to represent it. This is the fact that has made every reputable philologist a spelling reformer on principle. And this fact is gradually imbedding itself in the public consciousness, and as the facts of comparative philology become popularized it will take deeper hold of the common mind. The thought has already become productive, and men have combined in England and in the United States to improve the spelling so as to make it represent the living tongue. Now, combination is the characteristic of this age. The ends of trade, politics, and religion can be achieved only by men working together. Individuals are mere ciphers, and do not become factors until they combine with others to obtain some specific result. There are leaders simply because there are men who can make combinations which need leaders. Syndicates rule the financial world, railroad kings make and control the channels of trade, merchant princes organize corners in cotton and corn, political leaders combine to grasp and hold the keys of power, organized associations occupy the seat of influence in social and religious matters, and the Spelling-Reform Association, now thoroughly organized and officered, is now grappling with this perplexing problem of education. The best talent, the ripest scholarship, the deepest insight into affairs, are demanded for this work. The use of educational means, so that the maximum results may be attained through the minimum expenditure, is a problem of the very highest practical value. And this is our common problem. We are here to discuss better organization, devise better appliances and secure better school work. I said better, not implying that the work is not good, but that our chief appliance is bad. Our school officers are progressive, our school accommodations are improved and improving, our teachers have enthusiasm and skill, our children are bright and studious, but our current system of spelling is unfit for its purpose.

But the improvement of our spelling has begun, and the beginning is the important step in any process. Every somewhat has to begin in order to be. The plan of improved spelling has been thoroughly prepared, and the process of amendment is vigorously going on. As it proceeds it will gather strength and it will move toward its complete accomplishment with an accelerated speed.

We must not forget that written language is the greatest educational instrument the race inherits. It is the engine by which the ignorant become participators in the lore of all ages and all countries. One man cannot reform spelling, it requires a wide co-operation. The Germans and Swedes are reforming their spelling upon the basis adopted by this Association, and the English are rapidly gravitating toward our plan. The English Spelling-Reform Association started eighteen months ago without any definite plan of reform, but on inquiry find an almost unanimous sentiment in favor of an improved Roman alphabet and pure phonetic spelling. There has been great activity and there has been great progress *among our trans*-Atlantic cousins. Isaac Pitman, the venerable inventor of short-hand, has remodelled his phonotypy, and is bringing it more and more into harmony with the plan of our society. And ALEX. J. ELLIS, of London, so widely quoted in certain quarters, comes forward handsomely and says: "We want to find a system educationally effective. For myself I do not care what that system is. So far as that is concerned I throw to the winds all that I have done." When the spirit of reform is so pervading that great men like PITMAN and ELLIS surrender the work of forty years for the sake of harmonizing upon a practical plan of reform, it requires no prophet to fortell the result. The reform has passed beyond the control of individuals; it is now to be moulded by the spirit of the age, and we are sure "the fittest will survive." While we rejoice in the excellence of a plan so universally accepted, the *heartiness* with which it is received is a sure promise of complete success in the very near future. Common agreement is a first condition of accomplished reform. Men must first agree pretty generally as to what the new spelling is to be, and then as to the means of bringing it into actual use. The first is by far the hardest problem to solve. Now, the preliminary work of improving the alphabet and determining the standard of pronunciation has been carefully and quietly done. The volume of bulletins just issued explains all these details, so that I need not give them. The gratifying phase of the movement is that the plan of our Association is so widely accepted and approved. Very many minds grasp the plan in its totality, and others, if they will, can pass by the same bridge, from apathy and opposition to a rational comprehension and a hearty acceptance of it. It is the *will* that is lacking.

The need of an improved orthography is obvious. Bad as common spelling is, its influence upon pronunciation is felt to be its worst phase. We have dictionaries, monuments of learning as they are, and yet even educated people mispronounce large classes of words. We are using an obsolete system of spelling, and our school books for children and our cyclopædias for the learned alike have to contain glossaries giving the pronunciation of words. Thus while the masses are robbed of the ability to read, and those who do get enough instruction to hobble along after a fashion, do so at a great sacrifice of time and energy, it is the educated man who has to waste most time in acquiring a passable pronunciation. Three years ago I heard Dr. HARRIS say that the necessity of consulting the dictionary for the spelling and pronunciation of words had cost him five years of precious time. And who of us would not give Dr. HARRIS back these wasted years? But, alas! we cannot. The best we can do is to spare these years to the rising young men and women of the land, that they may have time to harvest the fields of knowledge ripening all around them. Now, our object is simplification—to reduce a very complex system to a very simple one. We dodge no difficulty, but grapple each and all difficulties. We have determined the matter of a standard pronunciation, which the volume of bulletins just completed unfolds and exemplifies. The forthcoming phonetic edition of the New Testament will be a pronouncing dictionary of the words contained in it. The principal elements in solving the problem of an improved spelling are, therefore, determined, and our work is now the practical one of amending our words as rapidly as we can, and of popularizing this perfected orthography. We are now to solve the problem practically. The partial corrections of special words are made in our interests. The work of Dr. HENKLE, in last year's volume of proceedings, was great joy to spelling reformers and to all friends of educational reform. We trust that this Association will empower him to publish the proceedings of this meeting in a uniform reformed spelling throughout. It will be so much testimony to the truth.

The usefulness of an improved spelling will appear more clearly when we consider what spelling is and what difficulties are to be overcome. Orthography is the right use of letters, but our current spelling is rightly called cacography, the wrong use of letters.

The simplification of English spelling is engrossing the energies of the chief men of England and America, of scholars, statesmen, scientists, philanthropists, and the most eminent educators. They are investigating the subject in all its particulars. The loose statements of former years are being revised and carefully determined facts substituted for mere guesses. Mr. A. J. ELLIS, of London, the prince of phoneticians, has developed the subject of duplicate signs in spelling. He shows that the vowel letters are used singly and in combination in ninety-seven different ways, and that each of these has from one to seven different meanings, so that the child must learn 319 vowel distinctions, or 319 vowels. This various use of letters is what makes our ordinary spelling so difficult and renders correct pronunciation impossible. As an illustration take the combination *o-u*. It represents seven different vowel sounds, viz.: In HOUGH, *ou* represents short *o*; in OUGHT, *ou* represents broad *a*; in SOUL, *ou* represents long *o*; in WOULD, *ou* represents short close *u;* in SOUP, *ou* represents long close *u*; in DOUBLING, *ou* represents short *u*; and in NOUN, it represents the glide *ou.* Now common spelling imposes upon the writer the task of knowing in just what words this combination is used, but the reader must know in addition in what words it is pronounced with one or another of these seven special meanings. This is the difficulty that breaks off the continuity of our reading and writing and is continually sending us to our pronouncing vocabularies. But the difficulty is augmented when we remember that there are ninety-six other combinations to learn, not all as difficult as this one, but yet, as Prof. HADLEY says, rendering the task of reading and writing more difficult than the task of learning two or three well-spelt languages. Now these 319 letters and combinations of letters are used to express twenty vowel distinctions, and by using a definite type or combination of letters for each of these, the spelling is reduced to such simplicity that all that is to be done is to learn twenty signs and he can then learn correctly without teacher or dictionary.

This is the phonetic system, and this is the simplicity to which the whole matter is reduced. This is a saving of 93¾ per cent in the time and energy required; or, to state it in the form of a proportion: the difficulty of learning to read or write the old spelling, is to what will be required for the new as 16:1. More briefly still, cacography: orthography:: 16:1. On what grounds can such a system be defended? Only prejudice, indifference, and ignorance could or would tolerate such an untruthful and wasteful system!

That such a system of orthography as this should be wasteful of educational means, is self-evident, and yet we shall submit some well-established facts in evidence. Dr. J. H. GLADSTONE, of London, has devoted a volume to the investigation of the time spent in learning to read and write in the different countries of Europe. The general conclusion is that the children of nations who have a phonetic spelling, learn to read and write well in two years less time than an English child does. In our American schools about 25 per cent—not less, very probably more—of all the money used in teaching the common branches is wasted upon and on account of our bad system of spelling. If we wasted such a large part of our means for want of buildings or apparatus or competent teachers the people would gladly tax themselves to remove the difficulty. But spelling, with all its absurdities, must be maintained, say the blind teachers of our youth. Rather let millions grope in ignorance than omit a single one of the useless letters, which add 22 per cent to the cost of everything written or printed. But we must dismiss our silly prejudices against an improved spelling. Spelling is an educational appliance, and as wise guardians of the public welfare, we must give this matter careful consideration. The important inquiry is this: Is an improved spelling practicable for educational purposes? Why not? If we wish to show the pronunciation of words, we must use diacritics, and in many cases respell the word, especially such words as *laugh*, *rough*, *knowledge*. Although the Germans do not have to teach spelling in every grade as we do, they are using a revised spelling in their primary schools. The English are urging the introduetion of a revised spelling into the lower grades of their schools, with the united co-operation of their greatest men. And the American Association is now ready to push the introduction of a revised spelling into the schools. We do not advocate a *method* of learning the old spelling. It is a new spelling of which we urge the use. Reading is more important than writing; on the average people read a year to writing a week. The new spelling will make good readers. The time that is wasted in learning the merest *forms* can be concentrated upon learning the *substance*.. The new notation is so simple that any child can comprehend it. And it is in your power to put it into the schools, to accept it for its great practical worth. Books and charts have been prepared, so that work can be begun. I want to disabuse the public mind of the thought that there is a sordid side to this matter. There is no patent upon anything that we have done. Any author or any publisher may take the new spelling and use it. It is free. On this point we have protected the public interests.

Can we afford to continue in the old way? Are not school boards throughout the land now cramped for means? Do not hundreds of thousands of our people have to grovel in ignorance just because it is so hard to learn to read? Remove this hindrance, and a song of rejoicing will break forth from millions of heavy hearts.

The Hon. D. P. Baldwin not being present the Association voted to hear the following paper prepared by the Hon. James P. Wickersham, which was on the program for Friday forenoon.

THE LEADING CHARACTERISTICS OF AMERICAN SYSTEMS OF PUBLIC EDUCATION.

Educational systems, as they exist in the United States at the present time, may be said to be indigenous. Certainly, there is nothing in any of the countries of the Old World from which they could have been copied. So far, at least, as their leading characteristics are concerned, they have grown up upon American soil, moulded into their present shape by the peculiar social and political conditions out of which they have sprung, and by which they have been surrounded. Doubtless, the pioneer settlers of the country brought with them across the sea some notions respecting education and schools. But European nations had not in operation, at that early day, any general scheme for the education of the people. They had established universities of great celebrity; and, in certain localities, there flourished excellent, isolated, elementary schools —but nowhere could there be found comprehensive systems of public education. The idea, if anywhere entertained, that education should be placed by the hands of the Government within the reach of all its citizens—even the poorest and humblest—had not then taken practical shape in the minds of the rulers of nations, the prevailing sentiment among those in authority being, that it was unwise, if not dangerous, to educate the masses of the people. To this statement an exception should, perhaps, be made in favor of the industrious, brave, liberty-loving country of William the Silent. Holland had established, soon after achieving her independence—late in the sixteenth century—a large number of schools, substantially free and open to all; and, thence, I am disposed to think, our fathers brought the seeds of those systems of education which they planted in the soil of their adopted country, and whose ripened growth now covers the whole land. Something of American sentiment may be detected in the memorable words of the far-seeing patriot, John of Nassau, in pressing upon his brother, the Prince of Orange, favorable action in regard to the question of universal education. "You must urge upon the States General," said he, "that they should establish free schools, where children of quality, as well as of poor families, for a very small sum, could be well and Christianly educated and brought up. This would be the greatest and most useful work you could ever accomplish for God and Christianity, and for the Netherlands themselves. Soldiers and patriots thus educated with a true knowledge of God and a Christian conscience, also churches, and school books, and printing-presses, are better than all armies, armories, alliances, and treaties that can be had or imagined in the world." Wonderful words to have been written more than three hundred years ago! Let it be remembered, also, that the Pilgrim Fathers resided some years in Holland, before their immigration to America; that the Dutch, themselves, settled New York and planted colonies along the Delaware; that

ROGER WILLIAMS was so well acquainted with Holland that he spoke the Dutch language fluently; and that WILLIAM PENN travelled and preached in the Low Countries and had many followers thence to America. And with these significant facts before us, we may probably reach the principal source of such notions of a system of public education as were brought to this country by the first settlers. These, however, were merely germs—their development was controlled by the new conditions to which it was subject. The change brought about in the course of years, almost amounts to a new creation; and, hence, our educational systems, as they exist to-day, may be considered purely American.

The historian will find matter of much interest in tracing the rise and progress of the educational systems in our several States. They have not always been as we see them at the present time. There has been a wonderful evolution in operating from the beginning. The people in our older States did not come at once to see that schools must be wholly supported at the public expense. The first schools, even when free, were in many instances essentially denominational, and religious was mingled with secular instruction. In some of the States, gratuitous education was provided only for the poor, while in others, each pupil was compelled to pay a greater or less amount towards the common expense. It would be a pleasant task to unfold the mode in which the grand underlying principles of public education gradually secured practical recognition in the school legislation of the country, but it is no part of my purpose at this time to enter upon a prolonged inquiry of this character. The special object of this paper is to set before you the leading characteristics of our systems of public education as we now have them, leaving to others the full discussion of their evolution from differing, pre-existing systems. The good I hope to come from what I have to say is, first, to show where we stand as a nation educationally, what are the essential features of our systems of public education, and wherein they differ from those of other countries; and, second, to furnish some guide to the school legislation of States in which educational systems are new.

1. The feature of American public-school systems that is apt first to attract the attention of one who would note their characteristics as they exist to-day, is, that the schools provided are open to children of proper age without regard to sex, race, rank, color, or religion. No discrimination is allowed. All enjoy equal school privileges. The object is to make education universal. The principle is everywhere recognized that as GOD made every human being capable of receiving an education, it is a duty to educate him. If one man is worth more to the State, to society, to himself, on account of being educated, the claim is considered valid for all men. The doctrine of equality in school privileges was not always recognized among us. The country came to it by slow degrees, but the only departure from it that need be specially noticed is to be found in our treatment of the colored people. This class of people did not generally enjoy in the past, even at the North, school privileges equal to those enjoyed by more favored classes. This injustice is no longer done them in that section of the country; and, throughout the

South, heroic efforts are being made to educate all classes alike. There can be no mistake about the drift of events on all sides of us. In their onward march they have swept from before them every obstacle, however formidable, that stood in the way of complete equality in educational privileges; and, for better or for worse, we are to try, on a scale of magnitude and with a thoroughness unknown in any other country of the world, the experiment of universal education. Our population of fifty millions is made up of people of many nationalities, of many religions, of several different races and colors, of all ranks in the social scale; but the spirit of our laws is to open the doors of our public schools to all, and to accord to all like educational opportunities. The social and political results of this policy are beyond human foresight. The wisdom of man cannot solve the dark problem. May GOD grant that it is the way appointed by him to make free institutions permanent!

It must be said, however, that while education is theoretically universal in this country, practically there are many hundreds of thousands of children growing up illiterate. This is not only the case in States where public education is of recent introduction, but in no part of the country have schools been established sufficient in themselves, without extraneous aid, to draw all children to them or to reach with their benefits the whole youthful population. Hence, in some States, compulsory educational laws have been enacted; in others, with more caution, power has been granted simply to arrest truant and vagrant children, and to establish and support suitable institutions in which to instruct and train them; and still others are waiting before resorting to severer measures, to test in every possible way the efficacy of good schools, with attractive surroundings, efficient administration, and enlightened public opinion, to bring into school of their own accord all children properly circumstanced. It is the unalterable purpose of the people of this country, as I interpret their will, to secure to every child born in it at least an elementary education—voluntarily if he will, but by compulsion if it becomes necessary. For myself, I have been averse to resorting to compulsory laws for educational purposes. I have thought that such laws could not be enacted and enforced in this country without some sacrifice of what we have considered republican principles, nor without working some harm to the schools themselves: but I am willing to acknowledge that ignorance is an evil of such magnitude, undermining as it does the very foundations of free institutions, that it must not on any account be tolerated. I am, therefore, for compelling children to attend school or to receive proper instruction and training, if otherwise they would grow up in ignorance; and this, without doubt, is the policy that is destined to prevail in America.

2. The public schools of the United States are free. No charge whatever is made for instruction in any grade of school. The air of heaven is not more free than education is to all the children of the nation, rich and poor, high and low. This has not always been the case. There is probably not one of the thirteen original States that began its educational work by providing schools absolutely free. In the famous Massachusetts law of 1647, considered the oldest of our statutes relating to public schools, *it was enacted* that the wages of the teacher were to be paid, "either by

the parents or guardians of the children, or by the inhabitants in general." Fees were exacted of children attending public schools in New York, Connecticut, New Jersey, and Rhode Island, even within the last twenty years. The poor only were taught gratuitously in Pennsylvania until 1834. There were isolated free schools in Maryland, Virginia, and elsewhere in the South at an early day, but no efficient free-school systems. The newer States, those admitted into the Union at the close of the Revolutionary war, with exceptions at the South, and except Michigan at the North, began by establishing schools unconditionally free. They profited by the example of their elder sisters. The Western States, in an especial manner as they came one by one upon the political stage, incorporated provisions securing free education to all the people into their organic laws, and soon had in operation systems of public schools on a magnificent scale; and, as they gradually assumed that prominent place in the Union to which they speedily became entitled, the influence of their advanced position was sensibly felt by the older States. That education is wholly free to-day throughout the vast territory of the nation is owing greatly to the course pursued by the intelligent, energetic, far-seeing pioneers who settled and built up the mighty commonwealths of the great West.

Thus we have come to consider that free schools alone will answer the conditions of our political institutions or meet the wants of our people. In this respect we are in advance of other nations, for even in the most enlightened countries of the Old World free schools have as yet obtained small foothold. Although efforts are now in progress in France and Belgium to make elementary education gratuitous, there are at present no free schools in Europe except in Switzerland. As a rule, fees are exacted of the pupils in attendance at the schools. They are generally small, are sometimes remitted in case of extreme poverty, but they are everywhere imposed as a tax. We see in the exaction of these fees a violation of the fundamental principles of public education, but it is not so understood abroad. Europe holds that education must be at least partially paid for to be appreciated; in America, we know our schools are dear to the people because they are free. To remit the fees imposed upon one class of pupils, and exact those imposed upon another class, would be to create a distinction among children that could not fail to be exceedingly odious in this country. Our policy is to make the schools entirely free, that all who attend them may stand on a ground of perfect equality.

3. A third characteristic of public education in the United States is that it is unsectarian. The schools are managed by Christian men, taught by Christian teachers, patronized by Christian parents; but their spirit is to avoid any exercise of a religious character that will offend the most tender conscience. The Bible is read and hymns are sung in the great majority of the public schools; prayers are offered in a smaller number; but such observances are practiced by common consent, and without objection. The laws bearing upon the subject of religious instruction in school are exceedingly flexible, wisely adapted to the varying denominational character of the population. These laws would even permit, in

most of our States, in a community exclusively Catholic, to have imparted in a public school religious instruction after the manner of the Catholic Church; and, in like manner, if all the patrons of a school belonged to one of the Protestant denominations, no question would be raised as to the form of religious instruction introduced. It is only because children of different religious denominations nearly always attend the same school, and their parents pay taxes for its support—only because the public schools are "common schools," open to all—that it has been found expedient either to confine religious instruction to the brief and simple exercises to which no one objects, or to dispense with them altogether. The prevailing policy throughout the whole nation is to preserve in the public schools as much religious instruction as is agreeable to the consciences of those who directly patronize them, but at the same time to make them thoroughly unsectarian, even to the exclusion of all formal religious instruction when no other alternative remains possible. The administration of a system of schools to which all contribute support must be fair to all, and the rights of conscience must be preserved in this country at all hazards. If religious instruction is excluded from the school, it can be given in the family, at the Sunday-school or the church; and there does not seem to be any unnatural divorcement in what should be joined together, if secular instruction is given at one time and place during the day, and religious instruction is given at another time and place. It is important to remember, also, that the exclusion of formal religious instruction from a school may leave undisturbed its religious life, the purest morals may still be inculcated, and the teacher's example may remain an unwritten gospel, touching and ennobling every child coming within its influence.

In Europe, public education in Holland has been secular since 1857, Belgium is trying to enforce the principles of secular education, and France is deeply agitated upon the subject; but elsewhere religious instruction of a denominational character is generally imparted in the schools, and there are ties of one kind or another connecting them with the church. Here, too, the school was once a religious institution. The school-house was in the early days frequently planted alongside of the church, and the minister was either the teacher himself, or it was considered a part of his duty to look after the school. Religious instruction suited to the views of the prevailing denomination formed an important part of the exercises. Such was the character of the schools which preceded the public schools, and such in good part was the character of the first public schools themselves. They have changed because the times have forced changes upon them—changed to suit the complex demands of modern society, with its multiplied sects and varied religious opinions. In circumstances like the present, public education must either be in good degree secular, or it must be abandoned. Schools organized as our fathers organized them could not last a day.

4. Children are seldom admitted into the public schools of this country under the age of five years. No system of educating little children under this age, such as the Infant Schools of England, the Salles d'Asiles of *France, or the* Kindergarten of certain German cities, has received much

public encouragement. The American people seem inclined to consider the home the best school for young children, and parents the best teachers. The family is the starting-point, the unit, of our civilization. Family influences sink most deeply into the mind and heart of a child, and are most potent in the formation of his character and the shaping of his life. We may well pause before we undertake to weaken these influences, or to supplant them by others which may not prove better in the end. Perhaps more good would be done by an effort to make the home a fit place for the education of the very young, than by an effort to provide suitable schools for these little ones outside of it. These questions then confront us:—At what age shall the school take the place of the nursery? When is it best that the teacher should supersede the father and mother in the work of instruction and training? The constitutions and laws of several States give the answer, at the age of five or six years, and the judgment thus expressed is likely to remain unchanged. And is it wrong? Are not the chances greater that the little child will grow in all directions more as God meant he should in the average American home, with the substantial comforts it affords, than if handed over in a mass with some millions of his fellows to the cold guardianship of even the most skilful instructors the State can provide? Few thinking persons will hesitate to answer in the affirmative.

But while our children are not permitted to enter the schools so young as in some European countries, they enjoy the privilege of remaining a longer time under instruction. More than one-half of the States provide by law that children may attend school until they are twenty-one years of age; and in the others, the practice is to allow them to do so. The average length of the period during which a child may attend school in the United States is over fourteen years. England closes the doors of her elementary schools against all children at fifteen years of age; Germany and Austria, at fourteen; France, Switzerland, Belgium, and Holland, at thirteen; and Italy, at twelve. The comparatively long period during which children in this country may attend school is a circumstance of marked significance in our educational policy. Its purpose is to give our school systems ample room to grow, and ample time to allow the humblest citizen an opportunity to enjoy their highest privileges. In the Old World the school period is short, because there is no general disposition on the part of those in power to see the common people educated beyond the mere elements of knowledge, or to have them rise above the sphere in which they now belong; here the school period is long, because it is the spirit of our institutions to give all classes the best possible chance to obtain a good education, and to better their condition in life. As a child does not need to go to school fourteen years to acquire the mere elements, to learn to read, and write, and cipher, these fourteen years of school mean Graded Schools, Grammar and High Schools—a liberal, practical free education for the masses of the people. True, there are among us persons, some of them in responsible positions, who contend that instruction in the public schools was never intended to extend beyond the elementary branches; but their narrow doctrine has received no sanction from the framers of our constitutions and laws.

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Provision is made therein for a live system of public schools, with room to grow. With its foundations thus safely secured, the system has grown, is growing, and its growth must continue.

Historically, too, it may be shown that provision for higher education is a leading characteristic of American public-school systems. Grammar and High schools are about as old as schools of lower grade. Under favorable circumstances, they were established cotemporaneously. In districts of small or scattered population, the higher schools were compelled to wait on the growth of the lower ones; but the former have been the complement and the fruitage of the latter from the beginning. The old Massachusetts statute of 1647, to which reference has already been made, providing a free school in every township of fifty householders, provided at the same time for a Grammar school as soon as the number of householders increased to one hundred. Connecticut, in her code of 1650, adopted the precise words of the Massachusetts statute concerning the maintenance of schools of different grades; and in 1701 enacted further that a common school should be established in every town having over seventy families, and a Grammar school in each of the four head county towns, to fit youth for college. The first school law of New York, that of 1795, provided that there should be taught in the schools, "English Grammar, Arithmetic, Mathematics, and such other branches of knowledge as are most useful and necessary to complete a good English education." This is quite an addition to the three R's! The first Constitution of Pennsylvania, framed in 1776, contained a section looking towards the promotion of higher education; and her free school law, enacted in 1834, pointedly sanctioned the establishment of graded schools. Moved by the free-school spirit awake in other States, Jefferson, in Virginia, as early as 1779, proposed a most comprehensive system of public instruction, embracing all grades of schools from the common school to the university. These are examples among the older States, showing the broad foundations upon which public education was based. In all the newer States, in legislating on the question of free schools, it seems to have been taken for granted that a public school system meant a system of graded schools adapted as to the number of grades to the circumstances of the people. In these States, every community established a school of higher grade about as soon as it was able to support it; and to-day there can be no question anywhere as to the disposition of the people to maintain the system they have built up in its full integrity.

5. The national government with us exerts no control in matters of education in the several States. We have a distinct and independent system of schools in each State and Territory, nearly fifty of them in all, varied in form, accommodating themselves to the circumstances of the people in the several localities; but alike in most respects, and one in every essential principle. All that the Government at Washington has done for education can be summed up in a few words. It exercises a certain kind of control over education in the District of Columbia and the Territories. It provides a military education at West Point for young men who desire to enter the army, and a like education at Annapolis for *young men* who wish to fit themselves for officers of the navy. In 1836,

a surplus fund of $15,000,000 was divided among the States, the greater part of which was used for educational purposes; and some $8,000,000 have been spent in the course of years in an effort to educate the Indians, a task which never until now seemed at all hopeful. The Bureau of Education was established in 1867, not with any intention of interfering with State systems of education, but for the purpose of collecting facts and diffusing information concerning education, both at home and abroad. This Bureau has more than satisfied the expectations of its friends, and within the sphere marked out it is accomplishing great good. At various times Congress has made grants of land to the several States for the purpose of creating a fund for the support of public schools, and for the establishment and endowment of colleges, universities, and schools of agriculture and the mechanic arts. These lands were in all cases either a gift to be used at discretion, or a trust to be managed according to certain general directions by the grantees. No right of control was reserved. The land-grant policy was inaugurated by the ordinance passed for the government of the northwest territory in 1785; and since that time not less than 150,000,000 of acres, a magnificent domain, more than four times the extent of the great State of Georgia, has been generously donated for the purposes of education. The good done by these grants is simply incalculable. The ordinances of 1785 and 1787 have probably done as much as all other causes combined to shape the school policy of the country. The school systems of the East were in a measure impeded in their growth by old customs and cherished traditions; those of the West, untrammelled by such obstacles, strengthened by the aid obtained from Congress, fashioned by men full of the spirit of liberty, came into existence fully matured, the unquestioned fruitage of free institutions.

A policy so productive of good should not be abandoned, and I was glad to see the promising attempt made by Congress at the last session to set apart forever the proceeds of the sales of what remains of the public lands for the purposes of education. As probably the best measure attainable, I was in favor of the bill that passed the Senate but failed in the House. The principal objection to it was the small amount of money it would have yielded. I was quite willing all the money should go in the direction provided for in the bill; I had so expressed myself publicly before the bill was acted upon by Congress, both in Washington and among my own people; and I am free to say now, that, as a Northern man representing Northern men, my only regret was that the amount the South would have obtained under the provisions of the bill could not have been made ten times greater. We are a body of States with a common life, a common interest, a common destiny; and good schools in Georgia are a benefit and a cause of rejoicing to every true man in Pennsylvania.

But all this in no way affects the principle that the authority to establish and control systems of education belongs to the States, and not to the general Government. Other nations may look upon our policy in this respect as complicated, clumsy, inefficient; but, in answer, we can point to a system of public education unexampled in its growth, unmatched in the vigor of its life and its promise for the future, and challenging the whole world to a comparison of results.

6. The position of the National Government has been defined on the subject under consideration; it remains to be said that the States themselves simply pass general laws regulating the work of education, and interfere to a very small extent with its direct administration. The real power in educational matters rests much nearer the people, the most distinguishing characteristic of public education in America being the local management and the local support of the schools. "Local self-government," says that fair-minded, keen-sighted English student of our educational institutions, BISHOP FRASER, "is the mainspring of the American school system."

The Government of the United States consists of four distinct centres of political power: the great Government, whose seat is Washington, covering the whole country; the several State Governments, with their reserved powers and duties; the county Governments, within those of the State; and last, township Governments, including under that name the governments of all sub-divisions of counties, which are the units of our political system. It is to the hands of these township governments, these local municipalities, so close to the people as to touch their very homes and hearts, are intrusted mainly the tremendous responsibilities of the education of the children of our fifty millions of people, soon to number hundreds of millions. They are the *imperium in imperio* of the American system of education. It is officers elected by the townships who in the main locate and build school-houses, provide the school supplies, fix the school terms, employ the teachers and determine their salaries, arrange courses of study and select text-books, grade the schools—establishing High Schools if they see proper—prescribe rules and regulations for the government of the schools and the attendance of pupils, and receive and disburse the money that comes into their hands from the State or from invested funds, and levy and collect the additional taxes necessary to keep the schools in operation the desired length of time. Nowhere else in the wide world is such power placed so directly in the hands of the people; and nowhere else, probably, could it be so placed with as much safety and success. Our schools really owe little to the Government, National or State, but they are almost wholly what the people, in their private capacity, have made them. Here is their strength; and here, too, is their weakness. With an intelligent, liberal, progressive people, the American plan is the best possible; but with the conditions reversed, in the hands of men who are ignorant or wanting in public spirit, no plan could be so bad. Let our people degenerate in intelligence or virtue, let them sink back into an age of darkness, as nations have done in the past, and our schools will go to pieces, and with them, as I verily believe, the great Republic will die. Our only hope of saving free institutions is to save the schools, and the only way to save the schools is to enlighten and lift up the people.

The doctrine of State-Rights is a favorite one at the South; but if I do not mistake the signs of the times, the doctrine of local self-government, *the complete* decentralization of power, is stronger at the North. Thinking men among us there are disposed to maintain that the vital principle of republicanism, of democracy, in this country, is not to be found at Washington, or at any of the State capitals, but rather in the little republics of the township and the town. Certainly, if we preserve freedom in these, we shall be able to preserve it in the greater political bodies of which they constitute the component units. Hence, the vital importance we should attach to that feature of our school systems which places their management almost wholly in the hands of the local authorities. Do not overlook it in shaping your educational work here in the South. Lose it, and all that is most essential is lost. An organization covering a larger territory, a state or national system, may produce quicker returns, may seem for a time more effective; but, in the end, it will become a dry piece of government mechanism, perhaps symmetrical in form and well adapted to its purpose, but wanting in the vitalizing principle, the educative power, of an organization that lies close to the minds and hearts of the people.

Can you of the South bear another friendly word? You must learn to rely mainly upon local taxes for the support of your schools. I have already expressed the hope that the National Government will come to your aid by placing a liberal fund at your disposal. Your several States will, doubtless, continue to make appropriations for school purposes proportioned to their increasing ability. But the most that is likely to be done in this way, will not be nearly sufficient to open your schools in the numbers and for the time your interests demand. The largest school funds we have at the North yield but a small fraction of the money required for school purposes. Our people support their schools mainly by taxes taken out of their own pockets. I have known poor people in districts among the mountains of my own State to tax themselves five per cent of all they were worth, in a single year, to secure good schools for their children; and two per cent is quite a common annual tax for this purpose. A spirit like this may deserve National and State aid, but it will effect its end without it. Wherever you have such a spirit here, your work is well nigh done.

Do not take my advice unkindly. You are accomplishing wonders in the way of education, and my only desire is to aid you. The task you have in hand, of educating your whole people, is one of extreme difficulty, but I have faith that you will accomplish it. Never before at any time in this country has there come to the front as leaders, a body of abler or more zealous men than those who now head the educational, the common-school, army of the South. They are fighting a grand battle, and victory must crown their efforts. Your whole country is improving. Its waste places are being repaired. Its lost property is returning. Its cities and towns are increasing in population, and new ones are springing up. Hope and ambition have come back to the people, and "*Resurgam*" flashes out in golden letters upon their banners. Cherish your schools. Let the people manage them in the only American way, by managing them themselves; and there will, most surely, in the fulness of time, arise, phœnix-like, a new South, stronger, wiser, better than the old.

As a contribution that may have some value in this changing order of things, I have written this outline of the leading characteristics of American systems of public education.

After the address a Georgia gentleman alluded to the Rev. A. D. MAYO's six months' visit to the South, and the gift of GEORGE I. SENEY, of Brooklyn, N. Y., of $125,000 to two Southern Colleges, Emory College at Oxford, Ga., and the Wesleyan Female College, and propounding certain queries.

This called out L. C. DICKEY, President of the Boston Institute, at Adairsville, Ga., who, having obtained the floor, spoke opposing public schools, free scholarships, and monumental educational institutions.

He stated by way of explanation, that in this position he claimed to represent no section of the country, but spoke simply as a member of the National Educational Association, who, as yet, had not been converted to the public-school system, though he had heard it eulogized in the National, Southern, and State Associations. While making his remarks he took occasion to say that he who is educated in the public schools learns to accept favor without returning value received, and will in all probability be a mere seeker of easy position, and that public schools, free scholarships, and monumental educational institutions are calculated to make scholars by charity, paupers in principle, beggars in theory, and thieves in practice. He further stated in reference to monumental educational institutions that the recent donations made by GEO. I. SENEY, of New York, to the Emory and Wesleyan Colleges in this State were perhaps the most unfortunate circumstance that had happened to the educational interests of Georgia for the last ten years.

Adjourned till Thursday forenoon.

Third Day's Proceedings.

THURSDAY MORNING, JULY 21, 1881.

The Association met at 9:30 A. M. Prayer was offered by the Rev. L. L. ROGERS, of Nashville, Tenn.

J. B. PEASLEE, of Cincinnati, Ohio, read the following paper on

MORAL AND LITERARY TRAINING IN THE PUBLIC SCHOOLS.

I shall not discuss the methods by which English Literature is now taught in our High Schools and Colleges, as the literary work which I shall advocate in this paper will not interfere in the least with that which these institutions are endeavoring to accomplish, but will be additional and supplementary to their noble work. That my position may not be misunderstood I desire to say in the outset that I am decidedly in favor *of retaining* the present systematic study of English Literature as a *dis-*

tinct branch in these institutions, instead of substituting anything for this work, as some erroneously suppose, I would give much more of it. In my opinion, however, our High-School courses of study in English Literature *should begin with the authors of to-day, (American), and go back to* CHAUCER instead of beginning with CHAUCER and coming down to the present time.

I desire before entering fully upon my subject to call the attention of educators to some of the mistakes that must be corrected before the public schools of our country can reach the highest standard of excellence in literary and moral training.

One of these is the disproportionate amount of time given to the subject of Arithmetic. Arithmetic has been and ever must be one of the fundamental branches of our common-school curriculum, and I yield to no man in my estimate of the importance of the subject, both in regard to what is usually considered as its practical bearing upon the business affairs of life, and its excellence as a means of mental discipline. Nor am I among those who would cut down the course of study in arithmetic to a few subjects, to those, only, that are generally considered absolutely necessary for all to know, to that only which is so-called practical.—Practical: there is a higher practical than the mere use that some of us may make of it in adding up our grocers' bills, or, perchance, in calculating discount and interest. The mental discipline, the strengthening of the mind, the intellectual power that the scholar obtains by the study of this subject is *the real practical, the higher practical.* It will never do to confine our courses of study in mathematics to that only which popular opinion considers practical. I object not, therefore, that there is too much ground covered in the arithmetic, or that it is too well taught, but that there is too much time given to it.*

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*NOTE.—This has grown out of the mistaken notion of parents and teachers that the more time there is given to a study the more the pupils will necessarily learn of that study. Paradoxical as it may seem, the children of our *district schools* would learn just as much arithmetic as they now do, if less than one-half of the present average amount of time were given to it. A little child can learn something of a number of subjects, and not much of any one. It can learn as much arithmetic on an average, in one hour a day as in ten, for in the hour its mind will take all it can assimilate, and any attempt to teach it more than this becomes a cramming, a stultifying process and defeats its own end.

Teachers should, therefore, bear in mind in making out their time-tables of study and recitations that only a limited amount of time per day can be *profitably* given to any one subject in the lower grades of the schools.

It will be remembered that in London a few years ago, half-time schools were established for the youth who were compelled by necessity to work in factories, etc. The School Inspectors thought, of course, the pupils who attended these schools could accomplish only one-half as much as those who attended the full time. Imagine their surprise and astonishment to find after careful and thorough investigation, that the half-time pupils not only kept up with the others, but surpassed them in their studies.

Let me say here, by way of parenthesis, that the fault of too much study for little children lies in the direction of cramming in some of the branches, and not in the variety of studies; that diversity in mental labor is less laborious than much dwelling on one or a few subjects. As many subjects, therefore, as can be taught *well* should be taught.

President Andrews, of Marietta, Ohio, who is known to be exceedingly accurate in his statements, says that more than one-half of the time of the schools of that State, outside of the cities and large towns, is given to arithmetic. Think of it; more time devoted to this one subject than to reading, writing, spelling, geography, and grammar combined; none to literature and composition. And what is true of the schools of Ohio in this respect is true of those of most, at least of the other States. Let the teachers of these schools cut down the time given to this subject to within the bounds of reason; introduce composition, letter-writing, and business forms. Let them stop working puzzles in mathematics, which are about as profitable as the famous fifteen puzzle, and turn their attention to reading, to improving themselves in literature; to acquainting themselves with the lives and writings of great authors, and let them take the results of that work into their school-rooms, and they would revolutionize the country schools of the United States.

In our city schools, less time, to be sure, is given in the programs, still taking into consideration the amount of home work required of the pupils, and the extra time taken to "bring up" the arithmetic, it is entirely too much.—A half-hour per day in the lower grades, and forty minutes in the upper is amply sufficient. But the teachers have been made to feel that high percents in arithmetic is the sina-qua-non of their success; hence, driving and cramming for percents largely take the place of judicious teachings, to the great detriment of the pupils.

Fellow-teachers, let us use all our influence against this cramming, stultifying process, this driving for percents, and teach according to the natural, the objective, the developing method; inspire our pupils with higher and nobler aspirations than are to be found in monthly averages, and let the measure of time devoted to each subject and the methods employed in teaching the same, be determined, not by the question, how shall we obtain the highest percents, but by what will best benefit our pupils in after life. This done, and there will not only be better instruction in all the branches, but much more prominence will be given to language, to composition, and literature, and our youth will grow up under such tuition to be more intelligent, useful, and influential citizens.

Another mistake, one which has a more direct bearing on my subject, as it affects the tastes of pupils for reading, is the pernicious method of teaching history usually pursued. I refer to the stultifying process of compelling the children of our schools to commit to memory text-books on this subject. No historian, as no mineralogist or chemist, was ever made by committing text-books to memory. History cannot be taught successfully by the *memoriter* plan. It kills the life of the subject. It disgusts the pupils and gives them a dislike for historical reading. As the pupils take no interest in the subject it is soon forgotten and there remains only the bitter recollection of tiresome hours devoted to what, if properly taught, brings profit and pleasure. As one of the principal objects of this paper is to show how to interest our youth in good reading, I will briefly explain, not only how history can be made intensely interesting and exceedingly instructive to pupils, but how a love of historical research can be implanted in them that will remain with them through life, and very largely influence their subsequent reading. First, all written percented examinations in this subject should be abolished. What is said in the text-book upon the topic under consideration, should be read by the pupils under the direction of the teacher. The teacher should see that they thoroughly understand what they read, and at each lesson question them in brief review of the previous lesson. She should read, or cause to be read, parts of other histories or reference books (encyclopædias, gazetteers, etc.) that bear upon the subject of the lesson. She should also give out questions, the answers to which the pupils are to find for themselves, and should encourage them in relating historical anecdotes and in giving sketches of noted events to their classmates.

But history should be taught, principally, *by biography.* Biography is the *soul* of history. The life of a great personage, as of CROMWELL, NAPOLEON, or WASHINGTON, contains nearly everything of importance in the history of the time and country in which he lived. Nothing is more entertaining to the young than the lives of the great men and women who have borne a prominent part in the world. I am not advocating a new theory. This method has been tried for two years in Cincinnati, and in one school alone, more than five hundred historical and biographical sketches were read within the past year, and in one class, sixty-four biographical sketches were given by the pupils to their classmates, and the constant allusion to other lives than those under actual discussion, led to a wide field of further research. Let me say here, that in a class in United-States History, I would not confine the biographical work to our own country, but would encourage the children to read and recite sketches of noted personages of other countries and of different ages. If the method briefly indicated above be pursued, the class will become enthusiastic in the subject of history, and will gain a vast amount of valuable information of which they would, otherwise, remain in ignorance; but, above all, they will form the habit, and a taste for reading good books which will remain with them through life.

Another mistake consists in giving too much time in the reading lesson, to mere *imitative* reading, and not enough to logical analysis, to ascertaining the meaning of the words and sentences. Children should be impressed with the fact, that the principal object of reading is to obtain the ideas and thoughts of others, and therefore, they should early accustom themselves to ascertaining the meaning of what they read, that no word, no sentence may be passed over without being understood. Let me say, that the dictionary should be the almost constant companion of the pupil of our Grammar and High Schools. Would you neglect the elocutionary side of the subject? I am asked. By no means. No one places a higher value on elocution, on the beautiful rendering of the reading lesson than I do, but I insist that it is the duty of the teacher to see that the passage is thoroughly understood by the pupils before she attempts to drill them in the elocution.

Another mistake is to be found in the fact, that the almost universal tendency in this country, of late years, has been to crowd too much into the High-School course by putting in subjects which properly belong to Colleges and Universities. To attempt, as I said in one of my annual reports, to make the High School a substitute for the College and University, must result in failure. The pupils are too young. They have not the maturity of mind required to comprehend thoroughly such a course of study. In my opinion, much of the present opposition to the High-School system is directly due to this cause. To remedy the defects and make the High Schools more efficient and popular, there should be a more judicious selection of studies, and much more time should be given to English Literature and to Composition. At least one lesson per day should be devoted to these subjects throughout the entire course.

GEMS OF LITERATURE.

Morality, if under this head may be placed honesty, patriotism, and good will to men, ought to come within the scope of school work, for morality in this sense is the dearest element of the good citizen, and the good citizen is the prime object of education. Our country has less lack of intelligence than of public honesty and private fair dealing, less lack of knowledge than of inclination toward a noble life—which facts show that something in the present order of society is either fundamentally wrong or deplorably weak. But where shall we seek a remedy? When and how begin to mend? The subject of moral progress does not belong solely to the religious world. It is not altogether a matter of religion; it is a matter of that good sense, that idea of public utility which considers the welfare of the immediate present, and looks with a benevolent eye to an improved manhood in the future. For morality is almost as beautiful when viewed as a guiding element to man in this world's transactions as it is when viewed as an essential to happiness in the world to come.

We can not serve the future of this world in a better way than in taking care of the present of the children. It is in our power greatly to elevate the world in morals. We can do this by introducing into our present educational system a factor whose object shall be to give the proper direction to the child's thoughts—to implant in his mind correct conceptions of the world and his place in it—true ideas of his duty to his neighbor and his country, and of his relations to the inferior world around him, which, sinking deeper and deeper with each generation, shall eventually supplant evil, and leave a soul worthy of the inspection of gods. "As a man thinketh so is he." Children should be led to think properly, that they may be enabled to act justly and generously. And it would be far safer both for them and the community if their acts were directed by fixed principles than by sudden and untrustworthy impulses. Now, as it is undeniable that to many the age of maturity does not bring with it those established ideas of right and wrong—those healthy conceptions which characterize the model citizen—I, for one, feel the necessity for a new feature in education, whose object shall be advancement in a moral way. I consider it our duty to attempt what I have indicated above. We owe it to the pupils as being our fellow-creatures; to the State as being essential to that good citizenship, which is the first object of free education.

The question is as to the method. My idea, as many of you know, is to make use of the gems of literature.

The literature of the world embodies a universal moral creed. In its fulness here and there may be found the holy teachings of the Bible in language pleasing to the ear of youth, and in form adapted to his understanding. It inculcates all the substantial teachings of the Scriptures without awakening the suspicion that the private realm of devotional form is to be invaded.

A broad-minded selection of noble passages, though it may not be able to do all we could wish in a moral way, can certainly do much to raise men to a high moral, political, and social plane. It may not make men prayerful, but it can make them respectful and respectable. It may not give them the wisdom of statesmen, but it can make them intelligent voters and fervent patriots. It may not fit them for a future life, but it can do much towards making this one pleasant to themselves and for their fellow-men. It can put a light into their hearts that will illumine many of earth's darkest places.

I believe that gems of literature introduced into our schools, if properly taught, will be able to do these things, partly by their own directive influence on the young mind, but principally as being such a draft upon the fountain of higher literature as shall result in an abiding thirst for noble reading. The right kind of reading will induce the right kind of thinking, and proper thinking will insure correct acting.

What harmony the introduction of literature into our schools assures us. The religious world will get from it all it ever asked or expected from the Bible. The secular world will get from it nothing it could possibly object to. At the shrine of noble thoughts the devotees of all creeds may bow as brothers. Let the public schools be the instrument of forming this common love for the noble and beautiful, and who but will acknowledge they have performed a work of greatest utility to man, and added a thousand-fold to their present value as factors in human progress. Heretofore, the boy's education has been no broader than his business expectations—his happiness as a man and his worth as a citizen have not been taken into account. The principles are too narrow for an age that is looking for good men as well as for good accountants and grammarians. They are unnecessarily narrow, they leave broad fields of noble soil untilled, and this soil must be tilled to bear fruit. For example—a man can not be a patriot, except negatively, until he has been led to understand and value patriotism. But on abstract or grand subjects, like patriotism, there is an unwillingness or incapacity in most minds to think. Such minds must be enlarged before patriotism can be anything to them but a barren name, but may not patriotic passages, under a wise teacher, promote the necessary growth? For who, even among the educated, has not felt a tinge of shame at the dulness of his own patriotism on reading GRIMKÉ's beautiful lines—

"We can not honor our country with too deep a reverence. We can not love her with an affection too pure and fervent. We can not serve her with an energy of purpose, or a faithfulness of zeal too steadfast and ardent. And what is our country? It is not the East, with her hills and

her valleys, with her countless sails and the rocky ramparts of her shores. It is not the North, with her thousand villages and her harvest-home, with her frontiers of the lake and the ocean. It is not the West, with her forest-sea and her inland isles, with her luxuriant expanses clothed in the verdant corn, with her beautiful Ohio and her majestic Missouri. Nor yet is it the South, opulent in the mimic snow of her cotton, in the rich plantation of the rustling cane, and in the golden robes of the rice field. What are these but the sister families of one greater, better, holier family,—our country,"
or SCOTT's—

"Breathes there a man, with soul so dead
Who never to himself hath said,
This is my own, my native land!"

What I have said of patriotism, applies to all the elements of great-mindness.

The practice, therefore, of memorizing the choice thoughts of our best writers, should be made a prominent feature of school work. OLIVER WENDELL HOLMES says "There is no place which an author's thoughts can nestle in so securely, as the memory of a school-boy or a school-girl." It is, also, in accord with the advice of ARTHUR HELPS, who says "we should lay up in our minds a store of goodly thoughts in well-wrought words, which shall be a living treasure of knowledge always with us, and from which, at various times, and amidst all the shifting of circumstances, we might be sure of drawing some comfort, guidance, and sympathy."

The idea of its introduction is not new in the history of education. In a similar manner the Germans have been long in the habit of training their children in the knowledge and admiration of the literature of their own land. The Arabs, the most civilized nation of the ancient world, taught their young to repeat the undying thoughts of their poets, under the beautiful name of unstrung pearls.

PLATO pictures the boys on long benches in the schools of Greece receiving moral instruction through learning and reciting the poetry of her classic authors.

For the greater part, the selections from the younger children should consist of entire pieces, and of such as are calculated to develop their emotional natures—the imagination, love of home and parents, kindness to dumb animals, etc., and to give them correct rules of action. Those for the more advanced pupils, should consist, principally, of brief extracts containing grand and ennobling thoughts calculated to incite them to higher aspirations in life, to lead them into pure fields of English Literature, and to teach them to love and reverence our great authors. In the selection of gems, poetry has the preference, for it inculcates a double beauty—beauty as thought and beauty as composition. It is more easily committed, and, as a rule, longer retained. "The taste for harmony, the poetical ear," says Miss AIKEN, "if ever acquired, is so almost in infancy. The flow of numbers easily impresses itself on the memory, and is with difficulty erased. By the aid of verse, a store of beautiful imagery and glowing sentiment may be gathered up as the amusement of childhood which, in riper years may beguile the heavy hours of languor, solitude, and sorrow; may enforce sentiments of piety, humility, and tenderness; may soothe the soul to calmness, rouse it to honorable exertions, or fire it with virtuous indignation."

"They who have known what it is," remarks WILLMOTT in "Pleasures, etc., of Literature," "when afar from books, in solitude, or in travelling, or in intervals of worldly care—to feed on poetical recollections, to recall the sentiments and images which retain by association the charm that early years once gave them,—will feel the inestimable value of committing to memory, in the prime of its power, what it will receive and indelibly retain. He who has drunk from the pure springs of intellect in his youth will continue to draw from them in the heat, the burden, and the decline of the day. The corrupted streams of popular entertainment flow by him unregarded."

The great COLERIDGE says, "Poetry has been to me 'an exceeding great reward.' It has soothed my afflictions; it has multiplied and refined my enjoyments; it has endeared my solitude; and it has given me the habit of wishing to discover the Good and Beautiful in all that meets and surrounds me."

All the selections should be recited in concert, and individually from the platform.

You are aware that years ago it was almost the universal custom for teachers to set apart Friday afternoon for declamation. But the exercise in declamation differed widely from memorizing and reciting gems of thought, which I advocate. Then the pupils were permitted to commit to memory whatever they thought best. The result was, that in a majority of cases, the selections contained no literary or other merit. They were made more from a desire on the part of the pupil to have something "new," or to create a laugh, than from any other cause. The time spent in committing such pieces was, in my opinion, worse than wasted, for there was nothing in them worth remembering. Their effect was to vitiate the tastes of the pupil for good literature, rather than to give them a love for it. It was not so much what the pupils memorized, as how they declaimed. In short, everything was sacrificed to declamation. In my opinion declamation, a subject almost entirely neglected in public schools of late years, is a very valuable exercise. Its tendency is to give pupils confidence in themselves; to make them more self-possessed; and, above all, to make them better readers. These worthy objects can be better accomplished by reciting "gems," than by declaiming long pieces, as was formerly the custom, for every member, even of an entire class, can recite a short extract within the time of an ordinary recitation, and each learn from hearing the others declaim, the same selection. But important as declamation is, in itself, it is secondary to the great object I desire to accomplish, viz.: Storing the mind of our youth, with grand and ennobling thoughts, clothed in beautiful language—thoughts that will incite them to noble aspirations of life—thoughts that inculcate virtue, patriotism, love of GOD, of father, of mother, kindness to dumb animals, and that give correct rules of action.

HOW TO TEACH.

At least one hour per week should be given to this literary work in all the district, grammar, and high schools throughout the country.

In Cincinnati a part of this time is taken from that assigned to morning exercises, and a part from Friday afternoon. However, this is left to the discretion of the teacher.

I recommend eight lines as a fair amount for each week's work. At this rate the pupils, in passing through the District and Grammar Schools, would commit 2,560 lines, and in passing through the district, grammar, and high schools, 3,840 lines, which is equivalent in amount to 128 pages of one of our Fifth Readers.

Important as it is, it is not enough that the pupils simply memorize the selections. Each one of them should be made the subject of a lesson to be given by the teacher.

For example; in presenting to the pupils for memorizing, this beautiful passage from WHITTIER's "Snow Bound,"—

"Alas for him who never sees
The stars shine through his cypress-trees!
Who, hopeless, lays his dead away,
Nor looks to see the breaking day
Across the mournful marbles play!
Who hath not learned, in hours of faith,
The truth to flesh and sense unknown,
That Life is ever lord of Death,
And Love can never lose its own!"—

the teacher should give a talk on the immortality of the soul, on the fond anticipation of meeting our dear ones beyond the grave, on the deplorable condition of him who does not believe in the Future Life. She should speak of the beauties of "Snow Bound," the greatest Americal idyl, and give the connection in which these lines occur; should bring out the meaning of "The stars shine through his cypress trees" and every other expression; in brief, should see that the pupils thoroughly understand every word and phrase; that they give the substance of the passage in their own language, and make the proper application of the same, before requiring them to commit it to memory. But above all she should endeavor to imbue their minds with the spirit of the extract.

Again, suppose a lesson is to be given on the Protection of Insect-destroying Birds, and such lessons should be given in every school-house in the land. How could it be more impressively done than by telling the story of the "Birds of Killingworth," by LONGFELLOW, and drawing from it the lesson intended to be conveyed by the author, and then fixing that lesson in the minds of the pupils by having them memorize (after thorough preparation) the following noble lines of the Preceptor:

"Do you ne'er think what wondrous beings these?
Do you ne'er think who made them, and who taught
The dialect they speak, where melodies
Alone are the interpreters of thought?
Whose household words are songs in many keys,
Sweeter than instrument of man e'er caught!
Whose habitations in the tree-tops even
Are half-way houses on the road to heaven!

Think, every morning when the sun peeps through
The dim, leaf-latticed windows of the grove,
How jubilant the happy birds renew
Their old melodious madrigals of love!
And when you think of this, remember too
'Tis always morning somewhere, and above
The awakening continents, from shore to shore,
Somewhere the birds are singing evermore."

Yes, in this beautiful world that GOD has made for us

" 'Tis always morning somewhere, and above
The awakening continents from shore to shore,
Somewhere the birds are singing evermore."

What an opportunity is given in this work for our teachers to impart moral instruction; to cultivate the emotional nature of children; to inspire them with a love of the noble, the good, and the true. Such instruction must bear beautiful fruits.

After the selection has been thoroughly memorized, the attention of the teacher should be given to the elocution—to the beautiful delivery of the same. This can be well done by concert drill. The concert should be supplemented by individual recitation. If, however, for want of time, any part of the work indicated above has to be neglected, it should be the individual recitation. As I said before, declamation is secondary to the committal to memory of literary gems.

As the value of these extracts, to one in after life will depend, in no small degree, upon the accuracy with which they are memorized in youth, therefore, the teacher should see that they are committed to memory, word for word. In order to do this, time should be taken from the grammar or language lessons for the pupils to write the extracts from memory. This would, also, be an excellent practical exercise in capitalization, punctuation, and spelling.

Let me say here, that this literary work trains the memory; there is, perhaps no weaker point in the school system of our country, than the frequent neglect of this absolute necessity in child culture. The memory needs as much strengthening by exercise as the muscles of the arm; but it should be employed, as here, in storing the mind with what is *worth* remembering.

It also enriches the vocabulary of the pupils by giving them many new words, and beautiful combinations, whereby they will obtain a better command over the English language.

The teacher should give sketches of the lives and writings of the best and most worthy authors, at least to all the pupils above the fourth year of school, and encourage them to find out for themselves interesting facts concerning these authors and their works, and to reproduce them either in compositions, or in oral talks before their classmates as I have already recommended in connection with the lessons on history. I also recommend that the teacher, or a pupil under her advice, read the entire piece, when appropriate, from which the extract is taken, or some other selection from the same author, as one of "TIMOTHY TITCOMB'S" letters, by J. G. HOLLAND; a story from HAWTHORNE'S "Wonder Book," a selection from "The Autocrat of the Breakfast-table," etc.

The name of the author, when known, (I require the full name) should be given at the close of each reading or recitation, in order to associate in the minds of the children the author's name with the selection.

In connection with this moral and literary training, and as a part of it, let me urge the importance of celebrating the birthdays of distinguished and worthy authors.

These celebrations may consist of compositions on the life of the writer, of the recitation of gems by entire classes or grades, of declamation, of reading, of singing, and of appropriate talks by teachers and friends of the schools.

Authorial-birthday celebrations interest the pupils in the writer and his works as nothing else can. They educate the whole community. The celebration of the birthdays of WHITTIER, and LONGFELLOW, and HOLMES, and the CARY sisters, and others, has caused an increased demand for their books, and *every good book that goes into a family is a moral and an educational force.* I repeat: *every good book that goes into a family is a moral and an educational force.* It has not only multiplied the number of their readers but that of many other of the great authors in American and English literature.

LONGFELLOW, and WHITTIER, and HOLMES, names unknown to the children of Cincinnati three years ago, are now as familiar to them as those of their own playmates. Hereafter they will be looked upon by the youth of that city not only as great and noble writers, but as dear old friends whom they fondly love. To me this attachment of the children to those great and pure men is a touching and pleasing result of the celebrations.

These celebrations, from year to year, should include not only poets and prose writers, but also great statesmen and distinguished scientists and inventors.

> "The poets who in song translate
> Emotions they alone have read,
> The patriots stern, who challenge fate,
> And walk with more than mailed tread
> The sages who the truth distil—
> Let these the child love if he will."
> —[JOSEPH W. MILLER.

But we should celebrate those only who have led pure and noble lives, whose moral character and private worth will call forth the admiration of the children and set them examples worthy of imitation.

Two or three celebrations a year are all the best interests of our schools demand, but these should be made as grand and impressive as possible, for the greater the interest that is created in the author and his writings, the better it will be for the pupils. After the birthday of an author has been celebrated, it should be appropriately observed from year to year by devoting fifteen minutes to one-half hour to the recitation of gem-thoughts and to review talks on his life and writings.

Having completed my suggestions on the methods of instruction, and the scope of their moral literary work, I desire to call your attention for a few minutes more fully to the good that will be accomplished by its general introduction into our schools.

DIME-NOVEL READING.

One of the greatest powers for evil is the low and degrading writings our boys and girls are reading. Even educators, I fear, are not fully aroused to the terrible influence this reading is exerting upon the lives and characters of the young. Some three years ago, in a lecture on Fiction, before a Boston audience, the late Mr. Fields said that he visited the Pomeroy boy in prison a few days previous, and asked him if he had ever read much. "Yes," replied the boy, "I have read a great deal." "Well, what have you read?" "Principally dime novels." "What novel did you like best?" "Buffalo Bill, because it is full of murders and pictures of murders." Doubtless this boy is naturally depraved, but the immediate cause of his committing his horrible acts was the class of reading in which he indulged. A year or two ago a number of lads from wealthy and refined families of New-York city, through the degrading influence of dime-novel reading, organized themselves into a band of burglars. Last year two youths murdered an old gentleman in Ohio from the same cause. How frequently we read in the daily papers of boys running away from home with cards, revolvers, and dime novels in their pockets.

Yet compared to the vast numbers of our youth who are demoralized by pernicious reading, the cases that are reported in public print, are the exceptions. The influence of this reading is seen in the slang language in which our youth indulge; in their disrespect for parental authority; in their treatment of the aged; in the wrong ideas of life which they entertain; and in the general spirit of insubordination.

Let us look at the circumstances in which our youth are placed in regard to literature.

At the homes of a large part of them there is scarcely a book, except the text-books of the children themselves. At the homes of a majority of those remaining may be found a few books upon the parlor table, which are usually considered by the parent as too nice for the children to read. It is safe to say that very few, indeed, of our youth have access to a good home library. That child who is trained at home to a love of reading good books is the exception.

Is it any wonder then, that our youth yield to the temptation to read the worst kind of story papers and novels that are everywhere thrown around them? In addition to other enticements, we find near all the large school buildings of our cities, shops which keep besides pens, pencils, and school-books, a large assortment of trashy story papers and novels. What a comment on the public schools! The venders of these papers place those having pictures of murders and Indian outrages, etc., in the windows.

The children attracted by these pictures buy the papers and read the stories. They soon become intensely interested in the stories and in the slang language in which they are written. The boys and girls buy novels of the same or of a worse tendency for from five to ten cents. These are purchased and devoured, and thus by degrees is formed the habit of reading this pernicious class of writings. The children are not to blame. There is nothing in their home surroundings to counteract these evil tendencies. The schools have been standing by saying, "Don't touch," "don't touch," but doing nothing to interest the pupils in good reading.

Knowing from experience, as I do, that it is in the power of the schools to control almost entirely the reading of the pupils and to implant in them correct literary tastes, I appeal to Boards of Education, to Superintendents and teachers, to take immediate and decisive steps to make this literary training in all the grades a prominent feature of school work. As the only effectual way to keep the youth of our country from reading the terrible dime novel is to *interest them* in the writings of good authors, and this must be done, if at all, by the schools.

LITERATURE AS A DISTINCT BRANCH.

Under the present system the study of Literature as a distinct branch of education is not attempted till the tenth year of school, when but one in twenty is remaining in school, and I will guarantee that former classes in the High Schools gathered fewer of the pearls of literature at the completion of their course than is possible with the Common-School classes under the plan now in operation in Cincinnati. And it should not be forgotten that the one in twenty that takes the High-School course is the one for whose welfare we need have but little apprehension. We can trust him. It is among the nineteen who fall by the wayside that we shall find subjects for our misgivings. It is here that we must exert ourselves as formers of character and developers of taste. In other words if literature has any elevating influences, its fittest field is the Common School, for here those influences are most in demand, and here is the single opportunity of reaching a large and especially needy class of pupils.

But let us look at the matter in another light. Pupils have heretofore entered upon the study of literature in the High Schools with almost no previous knowledge of literary character or development of literary taste. The result of gem-learning in addition to its grand object—the ennobling of the mind—will be to lay the foundation for deeper literary culture in advanced pupils,—to activate the mind in this direction and so store it with knowledge that the commencement of this branch of education in the High Schools shall be farther advanced than its termination has been heretofore.

THE CHILDREN INTERESTED IN GEM-LEARNING.

I have never known anything in school work that interested the children more than this. The interest, too, is not confined to the upper grades, but pervades all the classes, from the first year of school through the High School.

Children love to commit to memory beautiful selections, and recite them at home and at school. They love to hear of the lives and writings of good authors, and to talk about them to their fathers and mothers.

Again, these literary exercises relieve the monotony of school. Their tendency is to give the pupils a love of school and therefore to secure a more regular and larger attendance.

They do much to make the school strong with the people, an object that every teacher should endeavor to accomplish.

In conclusion I desire to call your attention to the remark of Mrs.

Elizabeth Gale, of Mt. Healthy, Ohio, as they present the subject of memorizing selections in another light.

Mrs. **Gale** is the aunt of J. G. **Holland**. "Dear old aunt," writes Dr. **Holland**, "She is the only living link that binds me to the last generation." Mrs. **Gale**, though ninety-three years of age on the 17th of last December—**Whittier's** birthday—is bright and intelligent.

It was one of the happiest moments of my life when that dear old lady, then in her ninety-third year, holding in her hand a pamphlet of selections I had sent her, said to me "Mr. **Peaslee**, you don't know how much good you are doing by introducing these selections into the schools. You don't know how the children will appreciate them when they are old."

"What a source of consolation they will be to them then. How they will love to say them over and over again." "Why," said she, "thinking over and repeating the little pieces I learned in childhood is one of the greatest comforts left me now."

She then recited a number of selections. Among them was one entitled "To my Watch," which she learned at home when a child only four years of age, from hearing her brother recite it. I had the piece written from her dictation, and printed, with the change, suggested by Dr. **Holland**, of a single word.

"TO MY WATCH."

Little monitor, by thee
Let me learn what I should be;
I'll learn the round of life to fill,
Useful and progressive still.

Thou canst gentle hints impart
How to regulate the heart;
When I wind thee up at night,
Mark each fault and set it right;
Let me search my bosom too,
And my daily thoughts review.

I'll mark the movements of my mind,
Nor be easy when I find
Latent errors rise to view,
Till all be regular and true.

This incident needs no comment from me. It tells more strongly than any words of my own, of how wonderfully the memory retains little pieces committed to its precious care in early childhood.

Yes, these beautiful selections will be remembered and will influence our children for good when the technicalities of their grammar, the abstrusities of their arithmetic, and the obscure locations of their geographies are forgotten.

After some announcements had been made by the President, A. W. **Calhoun**, M. D., of Atlanta, Ga., read the following paper on

THE EFFECT OF STUDENT-LIFE ON THE EYESIGHT.

There have always been, and even in our own day and time there still exist, those who are in doubt as to which is the most important of all our organs of sense. But especially often is the question asked, which is the greatest deprivation, the loss of sight or the loss of hearing? How almost universal is it that the blind appear bright, happy, and cheerfully resigned to the great loss they have sustained, while the deaf are not unfrequently dissatisfied, unhappy, and mistrustful. It has been my own lot to have had much intercourse with these two classes of individuals, as well in private life as in the well-filled and well-managed institutions for their benefit throughout various portions of the world; and this remarkable contrast between them is the more apparent, the more thorough and the more intimate my acquaintance grows. The doubt, indeed, is untenable, for in the eye we have that organ which brings us in the most immediate relation and connection with the outer world, with mankind, with the brute creation, with all nature; for nature best expresses itself to us through her visibleness. This alone suffices for us to comprehend. Nature offers much less for the hearing, for never can we learn to conceive of objects as they really are from the noises which may emanate from them and perceptibly strike our ear. On the contrary, imagination readily brings to mind the soft notes of the musical instruments that we can *see.*

We can often understand and comprehend men without hearing them, from the movements of the body and from their countenances. We can read from their lips what they speak when not a single tone is audible.

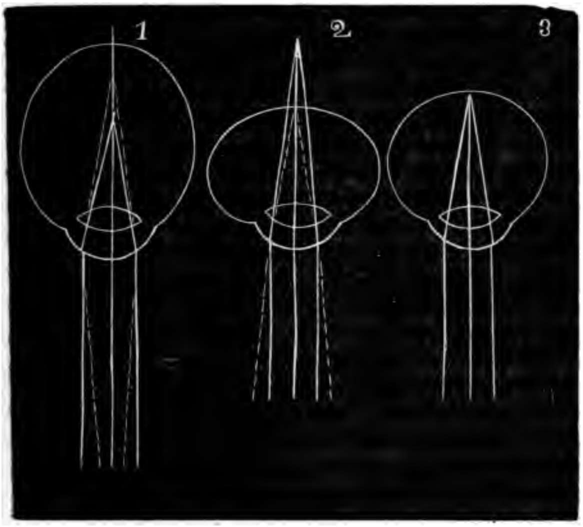
That sight is a direct aid and support to each of the other organs of sense can be readily tested and proved by each and every one. The finest and most delicate viands never taste so well as when we can see them. The enjoyment of the most fragrant flower is considerably heightened by the *sight* of it. A sensation, however pleasant to the touch, is infinitely increased when we can *see* the cause that calls it forth.

It is in the school-room that the largest and most important portion of the child's life is spent, and while the whole energy is bent upon the proper development of the brain, it is not seldom that too little attention is given to the true maxim that "only in a healthy body can a healthy mind live."

During these same years must the physical development progress, but how often can we trace back to those school-days the ground-work of bodily ailments, which prove to be stubborn barriers to all future advancement. Now, as the eye must play the role of a mediator between the subjects to be learned and the working brain, it is easy to understand that in the same proportion that work is demanded of the brain, in like degree does a tax fall upon the eye, and so it happens also that the eye, which, as the general body is perfecting itself during these very years of school-life undergoes not unfrequently powerful changes, which we can speak of only as diseased conditions, not only not admitting of cure, but here and there leading to the destruction of the organ of sight.

After we have shown that the eye suffers such powerful and unwholesome changes during the years spent in the school-room, then it is our purpose to demonstrate that certain influences during these years *originate* diseases of the eye, and finally to enumerate the means, with the help of which we hope to be able to at least limit the frequency and degree of intensity of these diseases.

We always judge of an eye according to its length, and in eyes of different length we have different vision. In this particular we recognize three different conditions, known as conditions of refraction. These are: 1. Emmetropia, or Normal-sightedness. 2. Myopia, or Near-sightedness. 3. Hypermetropia, or Over-sightedness.



That these conditions may be clearly understood, and for a thorough comprehension of the dangers dependent upon a certain one (2nd) of them, it is perhaps well that I should say a few words descriptive of them.

The hypermetropic, or over-sighted eye is too short a ball, and is a congenital *defect.*

The myopic, or near-sighted eye is too long a ball, and in *every* degree, from the slightest to the greatest, is not only a real *defect*, but is also an *absolute disease.*

In the interior of every eye there is a circular muscle (the ciliary) known as the muscle of accommodation, by whose action we are enabled to accommodate our visions for all distances, for near, distant, and all intermediate points. In the emmetropic, or normal-sighted-eye the action of this muscle produces no peculiar, no unpleasant sensations, for it acts within normal limits. But in the over-sighted or hypermetropic eye, both for seeing distinctly in the distance and very specially for seeing near objects, this little muscle must exercise excessive force and indeed the excess of force is the greater the more over-sighted the eye, or the shorter the ball.

A muscle that is brought into constant unnatural activity gradually passes over into a convulsive, spasmodic condition, or is so much fatigued that it is no longer able to undergo work. Both of these conditions take place in the human eye. The characteristic symptoms of this condition are as follows: Such persons (adults as well as children) are able to execute the very finest work for a greater or less time, perhaps without trouble, then gradually, may be suddenly, the work becomes indistinct, obscured, and things seem to run into each other. At times it appears as if a cloud were floating immediately in front of the eye, and one is no longer able to continue the work, and as a consequence a few moments rest follows, the eyes are rubbed, and after a pause of a short interval the work is again resumed, but mostly only for a short time, for the same symptoms return. Particularly is this the case towards the end of the week, after a whole week's constant use of the eyes, while on Monday, and especially Monday morning, in consequence of resting the eye, and therefore resting the muscle of accommodation on the inside of the eye during Sunday, the vision is at its very best. In some instances, this wearied condition of the muscle appears so suddenly that the persons affected think themselves blinded, and when they seek assistance and are told that the use of proper glasses will forever remove the trouble, they are astonished as well as rejoiced.

Unfortunately, it is not seldom the case that a great wrong is done children affected with over-sightedness; parents and teachers attributing the difficulty with which they progress in their studies to a "stubborn will" or "idleness," manifesting itself in their complaints of tired eyes, inability to go on with study, headaches, and so on, when in truth it is due to the over-taxed muscle of accommodation. I have had frequent occasion to call to these facts the attention of parents and teachers whose children or pupils may have been sufferers from over-sightedness.

But it is to that condition of refraction known as myopia, or near-sightedness, I wish to direct attention specially, for while the over-sighted eye is an eye of defective growth without disease, the near-sighted ball is not only defective in growth, for it is too long, but is in the real sense of the term a *diseased* eye.

The celebrated DONDERS, in his work on refraction, takes this as his motto: "I speak it without hesitation, that a near-sighted eye is a diseased eye." Let every one then seek diligently not to become near-sighted. As we have seen, the longer the eye the greater the near-sightedness, and the highest degree of it corresponds to the longest eye. Very rarely before the fifth or sixth year of life does near-sightedness make its appearance—about which time children usually begin their attendance upon school—but from this time on, under certain unfavorable circumstances, the eye gradually elongates, reaching and remaining perhaps at a certain point of elongation, a slight or high degree, or constantly increases through all the years of school life, even to the twentieth or twenty-fifth year, and indeed in some instances continues slowly to lengthen through almost the whole life. But it is not simply the elongation of the ball that is so much to be feared, but consequent changes which have an important bearing upon the acuity of vision, upon the movements, and upon the very existence of the eye.

If one hundred men with perfectly good eyes are able to recognize or read at a certain distance, say twenty feet, one and the same letter or number of letters, it is reasonable to conclude that any other person with equally good eyes could recognize and read the same letter or letters at the same distance. But if one is incapable of doing this, even with the defect of refraction (if such exists) corrected by proper glasses, then this *one has* less acuity of vision than the one hundred who were able to do so. This diminution of vision is a frequent and common circumstance with near-sighted individuals, and depends upon the diseased changes taking place on the interior of the eye, brought about by the abnormal lengthening of the ball. The movements of the ball are controlled by six muscles, and over their action near-sightedness exercises a very great influence, because of the ball being so long.

There exists a peculiar but certain connection between near-sightedness and the contraction of one of these muscles (the outer), causing the eye to turn outwards, constituting what in common parlance is known as *external* squint, or cross-eyes. A corresponding connection exists also between *over-sightedness* and *internal* squint, so that, indeed, in the majority of instances we are able to say when we see a person squinting *outwards* that he is *near-sighted*, and when *inwards* that he is *over-sighted*. There are, of course, exceptions to this rule. In every near-sighted individual the very existence of the eye is in danger, but especially so in those cases of *progressive* myopia, attaining finally a high degree. Such an eye can any moment become suddenly blinded through detachment of the retina, the lining nervous membrane on the interior of the eye, resulting in a very material reduction of sight, and in the majority of cases in irretrievable loss of vision. Doubtless the question has already been asked, can not this too short eye be made longer, and this too long eye be made shorter? No, I answer; for these changes in the eye must forever remain unchanged, but we can correct the defect in the over-sighted eye, in so far as the unpleasant and painful symptoms from the use of such an eye are concerned, and make the vision as comfortable as in the normal-sighted person. And we can make the *near-sighted* see not only near but distant objects. It would be out of place here to go into a detailed description of the means at our command for such correction. Suffice it to say, it is done in the first instance, the over-sighted eye, by the use of convex, in the second (the near-sighted eye) by the use of concave glasses.

The question naturally propounds itself, are we in condition to at least prevent its increase? This is a question full of the most vital importance, and it is the question that has led to the investigation of the eyes of a very large number of school children, after it had once become positively known that near-sightedness developed itself *particularly*, indeed *almost exclusively*, and attained its very highest degrees *during* the years of school life. So far as I can gather, there are the records of the examinations of the eyes of about 45,000 (forty-five thousand) school children, of all ages and of all grades, representing both white and colored races, and both country and city schools. Some of these investigations would lead us to conclude that the percentage of normal-sighted, others that the percentage of over-sighted children prevailed in the largest degree, but all, without a single exception, prove beyond a doubt that near-sightedness beginning perhaps at *nothing* in the lowest classes and first years of school-life, steadily increases from class to class in the school until in the highest grades, or in the last years of school attendance, it has actually developed itself in as many as sixty or seventy per cent of all the pupils. Amongst this large number we have children whose ages range all along from five to twenty years and upwards, all similarly occupied, and during a time in which the eye undergoes changes which will influence more or less the regulation of their entire lives.

In the school-room we can follow the eye from its beginning on—from its primitive condition as it were—where, as yet, it has been exposed to no injurious influences, and can follow it through a series of years to an age in which we can mark the boundary, beyond which we can say the further development of it under certain conditions will be for good, under other conditions, for evil.

Now we have found that in the *very early* years of life, *no* eye is near-sighted, and even in the *lowest classes* at school *no* near-sightedness exists, or if at all only in the slightest degree, and also that in the highest and last school classes, containing the oldest pupils, as much as seventy or even a larger per cent of the scholars are near-sighted. Knowing all this, the question presses itself upon us: how is it possible for an eye in a space of time from twelve to fifteen years, to undergo such a transformation? If nature prescribes or dictates these changes in the human eye, why is it then that *all* are not near-sighted? Or do unfavorable circumstances or conditions lend their assistance in bringing about this lengthening of the eyeball? Or have the sufferers inherited the disease from their parents or ancestors, and if so, why is it that these children are not near-sighted from birth? Some very interesting observations have been made during these investigations, and prominent among them are:

1. That over-sightedness (a too short ball) is originally the condition of the eye, and to reach the near-sighted state, (a too long ball) the eye must pass through the normal-sighted condition (a normal sized ball).

2. That with the increase in years and with the rise in classes, the number of near-sighted children more or less rapidly increases.

3. That near-sightedness in city schools is much more frequent than in schools in the rural districts, due to the better surroundings in the country, less strain and more rest for the eye.

4. That colored school children are remarkably free from near-sightedness,—the percentage being exceedingly small. In my own examinations of this class of students I have seen very few who were near-sighted.

5. That children frequently have the trouble whose parents or grandparents had the same, and that the acuity of vision is more frequently defective amongst the near-sighted than amongst any other.

I have before me the results of the examination of nearly 2,200 school children in and around Bern, the capital of Switzerland, and I take these tables because they are a fair type of all the others.

These show that the majority of children begin school life with Emmetropic, or normal-conditioned eyes, but that the number of normal-sighted children invariably and constantly diminishes as they rise from grade to grade. They show, also, on the other hand, that myopic, or near-sighted eyes scarcely exist at all, or in very small numbers, in the youngest children or in the lowest classes, but as they grow older and go higher and higher in studies requiring closer application of their eyes, just as invariably and just as constantly does near-sightedness increase, as *normal-sightedness* diminishes under the opposite condition of things.

In similar proportion also as near-sightedness increases does over-sightedness diminish, showing beyond the shadow of a doubt that both normal-sighted and over-sighted eyes (with one of which almost all children are born), under the influence of school-life and other unhealthy surroundings, gradually lose their healthy condition, until finally in the last school years, and in the highest grades or classes, near-sightedness, a truly diseased condition of the eye, becomes the condition of refraction in as many as seventy per cent of those now just in the very beginning of manhood and womanhood. This is truly a sad picture and a sad commentary upon the boasted civilization of the latter half of the nineteenth century, but it is true to the very letter, and needs but a most superficial study of the subject to convince him who doubts most.

But not only among school children do we find near-sightedness developing itself, but also amongst teachers, book-keepers, engravers, watchmakers, newspaper men, and indeed amongst all those who have occasion to look at fine objects for a long time, keeping the muscle of accommodation in a continued strain for a greater or less period. In all adults, however, the disease develops itself with much less frequency and with more difficulty than in children, because the tissues forming the eye balls in the grown person have received their growth, become hardened, and are much less influenced by excessive use than those of a child. Is it then a great misfortune to become near-sighted? Since a near-sighted eye is a diseased eye, this question bears its own answer upon its face. But what is the cause of near-sightedness, and since we cannot cure the disease—cannot make this too long ball short again—are we not able to prevent others falling into the same unfortunate condition?

The two principal causes are heredity and occupation. Others may exist, but they are unimportant in comparison with these two. That over-sightedness is often hereditary is a matter of every day observation; several members of the same family not only having the same defect, but oftentimes having it in exactly the same degree that existed in the eyes of their parents or grandparents. Of necessity, must hypermetropia or over-sightedness be at least congenital, but not so with myopia, or near-sightedness, for it can be either hereditary or acquired.

The tendency to the trouble may exist from birth, but the disease itself may never crop out unless conditions favorable to it present themselves. On the contrary, also, very many children acquire near-sightedness in whom there is no natural tendency to the disease, whose parents or grandparents were entirely free from it. It has been mentioned that in the children in country schools near-sightedness was, comparatively speaking, scarcely to be found. These pupils are the children of parents who themselves perhaps attended school but little during the early years of their lives, and had strained their eyes very little on near objects, hence the absence of an hereditary tendency to the disease in their children.

The parents and grandparents of city school children have themselves perhaps for generations back, attended city schools, and have year after year engaged in those avocations in the city which are a constant strain to the muscles (particularly the ciliary) of the eye leading ultimately to a lengthening of the ball, a tendency to which is transmitted from generation to generation.

Out of nearly five hundred (500) negro school children examined in New York by Dr. CALLAN, only two and a half per cent were found near-sighted, and out of thousands of the natives of British India, examined by British Surgeons, not a single one was found to be near-sighted. Amongst a large number of negroes examined by myself from time to time not more than one-half dozen cases of near-sightedness have as yet come under my observation. These were in grown negro men, who, for eight or ten years had applied themselves unremittingly to their studies, and had acquired a very extraordinary amount of intelligence, but at the cost of a defect of their eyes, which must forever leave them in a diseased state. The negroes then are as yet but little subject to near-sightedness, because their forefathers never had occasion to use their eyes to an injurious extent, and hence, as yet also, only the tendency to good eye-sight have they inherited from them.

Now, while heredity gives rise to the tendency to near-sightedness, and certain subsequent avocations cause its full development in a large number of instances, still there is no doubt whatever that the avocations of individuals during school years, as well as later is often the sole cause of the disease, without the existence of the slightest hereditary tendency. In the school-room there are two kinds of influences that work injuriously upon the eye-sight. Under the first are classed all those things which compel the eye to strain itself in order to see distinctly small letters or objects. Under the second, all those which cause a congestion of or rush of blood to the head and eye. To the first belong bad ventilation and improper light, too small and imperfect type, pale ink, many successive hours at the same kind of work, as in reading, writing, sewing, etc., without change or rest of the eye, all sorts of toil causing the use of the eye until late in the night and sometimes with very defective light. To the second belong not only those things just enumerated, but also the construction and arrangement of school desks and benches, which in many schools make it next to impossible for pupils to hold their bodies in proper position for any length of time.

For demonstrating the role that bad air alone, acting as the primal cause, may set in train a series of morbid processes, which may, and often do affect, not only the working capacity and integrity of the organ, but which may lead even to its total destruction. This simple irritation of the mucous membrane of the eye may, and often does, pass into actual inflamation, which, increasing in violence, may proceed from part to part till the entire organ is involved, and thus the sight become impaired totally lost.

Ought not the light to fall, not full in the face of the child, but first on the book, or work, and be reflected into the eye?

Before answering this question precisely as it now stands, I should like to premise it by making the general assertion that not only is the direction in which the light comes important, but also its quantity and quality. *Reduction in illumination* is, as a rule, precisely equivalent to a reduction in the size of the object. Therefore, the less the light, the nearer an object has to be brought to the eye, and the greater the strain in the act of vision.

It is impossible to fix with any scientific exactness just the size that a window should be to give sufficient light, for visual purposes, since this must vary with the exposure and surroundings of the room; but it has been reckoned in Germany that for a class-room containing twenty persons, there should be at least 4000 to 6000 square inches of glass, which would give to each scholar from 200 to 300 square inches, or what would be represented by a pane of glass from 14 to 17 inches square. Such a room as this would be sufficiently lighted in any part. A room 20 feet square should not contain less than 70 to 80 square feet of glass, and it may be laid down as a rule that too much light cannot be obtained in a room, as all excess of glare can be guarded against by artificial shades if properly applied. More light enters the room from the same amount of glass from the south than from the north, and a southern, southeastern, or southwestern exposure is better than a northern, northeastern, or northwestern, especially for class-rooms; and this, too, simply in regard to the amount of light and independent of the purifying influences of direct sunlight.

That a north room is better for the purposes of the artist is due to other causes and does not affect the general rule.

The light should not come from directly in front, and especially is this the rule when artificial light is used. For when the light comes from directly in front of the person, the pupil of the eye becomes unduly contracted, which is equivalent to reducing the quantity of light, since less light enters the eye from the object viewed, while the eye is exposed to too much light from the surrounding objects, and from the direct rays from the source of illumination.

Neither should the light come from directly behind, as the object then lies in the shadow of the body. Nor as yet from the right side, because in writing the shadow of the hand falls across the page, and a moving shadow over a lighted surface not only reduces the quantity of light and leads to a stooping position, but it is also more annoying to the eye than a uniform reduction in the illumination of even a greater degree. The best direction for the light to come is from the left-hand side, and from rather above than below the level of the head. Windows, therefore, should not be run down too near the floor, as they often do in class-rooms and offices. I cannot agree with the opinion often expressed, that the best direction for the light to come from is from directly above.

I cannot refrain from adding, in this connection, the conclusion founded on Dr. COHN's elaborate investigations in regard to the near-sightedness among school children in Germany. He thus formulates it: The narrower the street in which the school-house was built, the higher the opposite buildings, and the lower the story occupied by the class, the greater the number of near-sighted scholars. I should, then, from these considerations, say that the angle at which light strikes the eye is important, and that it ought not to fall in the face of the child, but first on the book or work, and be reflected into the eye.

Does the size and quality of the type cause disease of the eye?

First in regard to the size of type. The smaller an object is, the nearer it has to be brought to the eye to be perceived. It has been accepted by oculists that type embraced by an angle equal to 5′ (five minutes) is the smallest printed matter which can be recognized by the average normal eye. According to this formula the smallest printed type which a normal eye can readily recognize at a distance of one foot is about $\frac{1}{50}$ of an inch, at eighteen inches (the average distance at which the book is held by an adult) the smallest recognizable type would be about $\frac{1}{32}$ of an inch. The normal eye should never be subjected for any length of time to a type smaller than twice this size, that is $\frac{2}{32}$ ($\frac{1}{16}$) of an inch, and it would be better, after middle life, to employ a type even a little larger than this. The fact, however, that spectacles are now so commonly used, removes in a great degree, by restoring to the eye its former focalizing power, the necessity of a larger type with advancing years. Young children should never hold the book nearer to the eye than ten inches, and adults never farther from the eye than eighteen inches. As soon as perfectly distinct vision at this distance cannot be obtained, and if obtained cannot be easily maintained, recourse should be had to spectacles.

The finer, then, the type, the closer the book has to be brought to the eye, and the greater the tension or demand on the focalizing power, and the muscles which are used in bringing both eyes to bear at the same time upon the object viewed. These two acts make what is called the act of accommodation of the eye, and tension of the accommodation, that is, long continued use of the eye upon objects brought close to it, is considered by all authorities one of the most, if not *the* most fertile cause of progressive near-sightedness.

This condition may be accompanied by morbid processes, which may involve the deeper-seated membrane of the eye to such a degree as to not only affect the vision, but to destroy it. Too fine print, therefore, may be, I think, looked upon as a factor in producing eye diseases, affecting not only the external, but also the internal parts of the organ. On the other hand, too coarse print is wearisome to the eye, as it requires more exertion of the muscles governing the movements of the eye; that is, for a given amount of matter; and especially is this the case when the breadth of the page is, if anything, too great. This causes undue exertion on the part of the muscles which move the eye in a lateral direction, and is apt to lead to confusion in finding the next succeeding line. It is for this reason that the narrow form of English blank verse is so little fatiguing to the eye.

The popular prejudice in regard to the double column on a page would be untenable were it nót that the same economy which restricts the amount of space also reduces the size of the type and crowds the lines together. A double-column page which is well printed and properly divided is certainly preferable to the same amount of matter extending in a single line across the entire page. The distance between the lines, that is, from the bottom of the line to the top of the other, should be about $\frac{4}{32}$ or one-eighth of an inch. Nearer than this is apt to be confusing; farther, fatiguing.

Quality of type.—The less contrast there is between an object and its surroundings, the more difficult it is to see the object, and the closer it has to be brought to the eye.

A faintly-printed page has, therefore, to be brought nearer, oftentimes very much nearer, than a well-printed page of the same type. There is nothing more wearisome to an eye than an indistinct and blurred image of a familiar object, and no more striking example of this could be found than blurred or faintly-printed type. This should be sharply cut, and what is technically called "heavy-faced" in contra distinction to light-faced type. Of the former a common example is the English; of the latter, the American. The ink is also a matter of importance. English ink, like the type, is vastly superior to the American. The color and quality of the paper has also an influence upon the ease with which the act of vision is performed. For, while it is true that there should be as much contrast as possible between the type and its surroundings, care should be taken to avoid all glare or dazzling of the page. Pure white paper, such as is ordinarily used in this country, should not be employed, most of all when it has, as it often does in the cheaper papers, a metallic lustre with a bluish tinge.

I have come to the conclusion that, as a rule, a very light almost imperceptible yellow tint is the best. This is known in the trade as "natural" tint from the fact that it contains no die whatever, and has been bleached only to a moderate degree. It has the color of unbleached cotton cloth. It is however expensive, as it can only be made from the best stock; still a very good imitation can be had in some of the second-class papers at a moderate cost. The paper should be thick enough not to be transparent, should have a close fine texture, and be free from sponginess. From these facts I am of the opinion that, both in respect to size and quality imperfect type may be considered as a factor in the production of eye diseases.

Does too long and constrained attention to one object, without rest or variety, cause eye disease?

That prolonged tension of the eyes may be the primal cause of a great number of diseases of the eye, is admitted by all authorities, and the more fixed the gaze and the narrower the field of view, the greater the danger. If it be true that continued tension of muscular and nervous force unduly exhausts the energy of any organ, it is doubly true of the eye. The nervous energy of the retina, sensitive and rapid as it is, is just as rapidly exhausted, and the act of reading would be unbearable after a few moments if the eye did not quickly change its position from letter to letter and from line to line. Diversity of action is as much a necessity in the case of the eye as of any other organ for an easy and lasting performance of its function.

No eyes, in my opinion, should be used more than an hour at the farthest in the act of reading or writing without an interruption of the gaze, and it would be better if several, if not many interruptions should take place in the same time.

This usually happens in the case of adults, for some reason or other; but children, in order to complete their tasks in an allotted time, are often compelled to use their eyes, without sufficient interruption, by the hour together.

It would be impossible, and out of keeping with the condensed character of these remarks, to enumerate here all the diseases which may arise from prolonged tension of the eyes on near work; but there is one affection produced by it, which is so frequent in its occurrence and so unfortunate in its results, that I cannot refrain from quoting the remarks of the distinguished Prof. DONDERS. He says: "The distribution of near-sightedness, chiefly in the cultivated ranks, points directly to its principal cause, viz.: tension of the eyes for near objects. Respecting this fact there can be no doubt.

"Three factors may here come under observation: 1. Pressure of the muscles on the eye-ball in strong convergence of the visual axes; 2. Increased pressure of the fluids, resulting from accumulation of blood in the eye in stooping; 3. Congestive processes in the eye which tending to softening, give rise to extension of the membranes. Now in connection with the causes mentioned, the injurious effect of fine work is, by imperfect illumination, still more increased.

"To this it is to be ascribed that in schools where, by bad light, the pupils read bad print or write with pale ink, the foundation of near-sightedness is mainly laid which, in fact, is usually developed in these years."

But little will be said in reference to desks and seats, though it would seem they deserve the most careful consideration on the part of those in charge of the education of children, since a large portion of a child's life is spent behind one and upon the other. It has been contended that every pupil should have a desk to suit his size, but this in many instances is impracticable for several reasons, but mainly on account of the expense. The chief idea to be borne in mind in the arrangement of desks is that they should be so constructed that the children can sit without becoming too rapidly wearied, and that they (the desks) should not be so low as to cause the body to bend forward, nor so high as to make studying difficult, as in writing for instance. But of what use are all these proper arrangements at school, if as soon as the children get to their own homes, they write and study at tables that are inconvenient even for the grown members of the family? Of what benefit is the most superb illumination in the school-room, if the children, when at home, work several hours of the day in the corner of a badly-lighted chamber, and at night by the light of a flickering candle or lamp, used perhaps by five or six others of the family, and which is insufficient to properly light up the book or map of even one or two of the children? If we wish to protect the eyes of children during the time in which they are acquiring their education, give them above all things else, plenty of well-regulated light.

They should be prohibited using their books during twilight, by the light of the moon, and certainly should they be forbidden such dangerous use of their eyes as reading in bed. Says a well-known writer: "It seems to me that the very etymology of the word education, enforces the idea that the child is to grow better and stronger up through his school life; that by proper regulation of his diet and management at home; by properly-lighted school-rooms and properly-constructed desks, and a better regulation of his hours of study, he should represent a much higher type of life when he has reached the age of twenty-five, than when he is just taken in hand with the view of giving him book knowledge. We certainly should not damage the eye in the process of education, and I believe that the damage done to the eye is to be taken as an index of that which is done to the other organs of the body."

In conclusion, when every school-house in the land, and every school-room and school desk shall have been properly constructed according to the most scientific investigations, and plenty of good light thrown upon books properly and plainly printed with good ink—when the habits of study of all children shall have been regulated both in the school-room and at home, then do I feel convinced that while we may not be able to banish these particular diseases from the world, without doubt will we be able to reduce them in number and in degree of severity.

The Secretary made a statement in reference to the expenses and finances of the Association and made an appeal for life-memberships. The only public response was from Hon. DANIEL F. DEWOLF, State Commissioner of Common Schools for the State of Ohio. Mrs. MALLON, of Atlanta, Ga., widow of the late BERNARD MALLON, a former member of the Association, also became a life-member, but at her request no public announcement was made of the fact. Subsequently in private the Secretary obtained the name of GUSTAVUS A. WOODWARD, of Selma, Ala.

After a few minutes recess a letter was read from the Hon. ALEXANDER HAMILTON STEPHENS, of Georgia, expressing his regret at not being able to attend the meeting.

The regular order of the day was taken up, namely, the resumption of the discussion of the day before.

Mrs. LOUISE POLLOK, Principal of the National Kindergarten and Normal Institute of Washington, D. C., spoke as follows:—

It has been decided by the best educators of the day that the Kindergarten training aims to shape the child's character by natural means. A preliminary step and a very important one would be to introduce Kindergarten methods in our primary schools as they now are, and obtain the time to do so by not giving so much time to reading, spelling, and arithmetic, and it is the duty of our City and State Superintendents as well as of the trustees of school boards to study well into its merits, and devise means for its practical application. It is just as the speaker said about the lady who applied for a teacher's position. She could write out difficult problems in arithmetic, etc., but when the question was given

"What is the price of one yard of silk if 25½ yards cost $1.00?" she took half a day before handing in her reply. What children learn by simply memorizing does not assimilate. While in the Kindergarten we have no regular study of geometry or arithmetic, numbers are constantly associated with form in everything that is done. Thus with his little ball the child finds out that there are various directions when he swings it from front to back and from right to left; with his blocks, they perhaps represent a loaf of cake, which he divides into halves, quarters, eighths. I knew a child eight years old, who, when being examined for admission to the third grade of the public school, was asked if he knew how to either add, multiply, divide, or subtract, replied "no" every time, while in reality he could do each of them very well when practical examples were given him to do. But in the Kindergarten he had never been taught arithmetic as an abstract science. He had learned all about numbers, like the little prattler learns by his mother's knee, without being conscious that he was receiving instruction, and it had assimilated as naturally and inseparably as his food had become part of his flesh and blood.

But as yet we have hardly any teachers who know enough of the Kindergarten philosophy and method to be able to make use of it. The Kindergarten philosophy should therefore be taught in all the normal schools, even if some other branch of learning should have to be left out. When a science has been discovered—based as it is upon all the wisest researches and thought of the greatest educators of all ages—which will not only give us better teachers, but will also give us wiser mothers, who will know how to bring up their children more healthy, more bright and joyous, more loveable in every way, is it not your plain duty to give this science to the young girls in your high and normal schools as well as to those in all Female Colleges, or even Schools of Reform for women? I too would prefer, like Mr. WICKERSHAM, that the mother should be the child's first educator, and that at three years of age he should not be sent away from home, even for half a day, and my principal efforts have been and shall be directed to bring the torch of the Kindergarten philosophy to illuminate the nursery. For I pity not only the child but the mother also who strikes her child, as has been seen, because it is crying with the cold or has burst a button from its waist. But until we can have mothers who not only know how, but are willing to occupy themselves with their children in a philosophical manner, we must labor to give the Kindergarten to those children whose mothers, with the best intentions in the world, have no time or who leave their children in the care of ignorant nurses, because they are slaves to the claims of society upon their time, or still more to those dear pitiable little ones who are to be found in orphan asylums, or homes for friendless and destitute children, where, as I have seen them, twenty-three of them, all under six years of age, are huddled together in one room, with an old woman for their nurse, who is hard of hearing, with nothing to employ their time all day long, without any knowledge of the sweet plays and gymnastic songs taught by the Kindergartener. I forget the verbiage of the old saying "Mischief will come to idle hands." Any system of instruction that will give joyous employment to little fingers, aims through plays to give physical strength or grace of motion, quickens the intellectual powers of the child, and arouses his moral sensibilities, ought to be considered worthy of your investigation, and if its claims are well founded, then will you not do all you can to place it within the power of every girl to gain a comprehensive idea of the Kindergarten philosophy, so that she may be able to use it and walk in the rays of its light, whether she becomes a teacher, mother, or whatever relation she may hold towards a child in the future. I place my services at your command.

Mrs. POLLOK was followed by G. F. HOWARD, Professor in Howard Institute, at Marietta, Ga.

The Secretary read the following communication from the Senate of Georgia.

SENATE OF GEORGIA.

ATLANTA, GA., July 21, 1881.

To the President National Educational Association :
Atlanta, Ga.

DEAR SIR:—I am directed by a resolution of the Senate, this day adopted, to extend to the officers and members of the National Educational Association, a cordial invitation to seats in the Senate Chamber during their stay in the city.

It affords me pleasure to convey this information to your body, and to hope that we may be favored with your presence.

Most Respectfully,
W. A. HARRIS,
Secretary of the Senate of Georgia.

To which the President by order of the Association returned the following reply:

OPERA HOUSE, 11½ A. M.
July 21, 1881.

To the Hon. Members of the Senate Georgia :
GENTLEMEN :

Your invitation to visit the Senate of Georgia has been received by the National Educational Association, and is hereby accepted with thanks.

Yours very respectfully,
J. H. SMART.

Discussion was then resumed, the speeches being limited to five minutes. Remarks were made by JOHN W. DOWD, of Ohio, F. LOUIS SOLDAN, of Missouri, W. F. SLATON, of Georgia, J. J. RUCKER, of Georgia, WILLIAM A. MOWRY, of Rhode Island, SAMUEL BARNETT, of Georgia, D. F. DE WOLF, of Ohio, T. C. H. VANCE, of Kentucky, A. J. RICKOFF, of Ohio, and M. A. NEWELL, of Maryland.

WM. A. MOWRY reported the officers for the Department of Elementary Schools.

Announcements as to railway tickets and other matters were made by the President and Secretary.

Adjourned until 8 P. M.

EVENING SESSION.

The Association met pursuant to adjournment.

Prof. WILLIAM I. MARSHALL, of Fitchburg, Mass., delivered the following address on

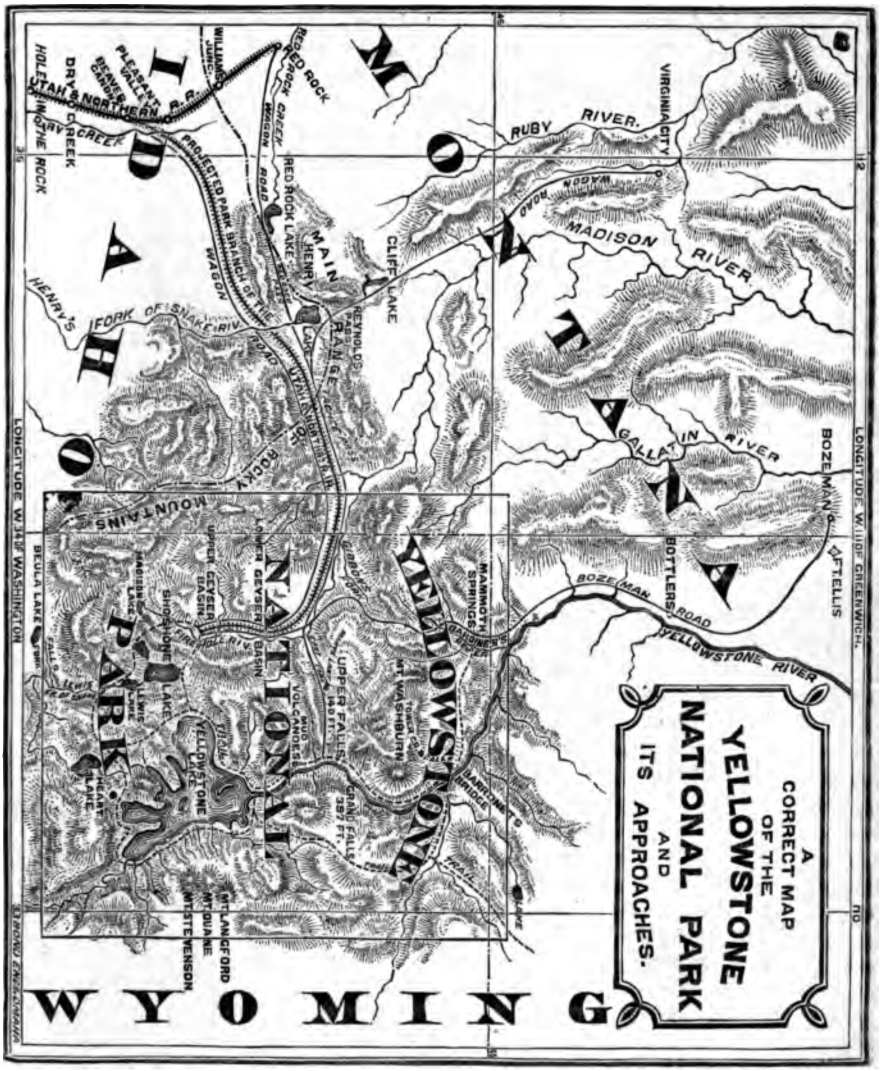
AN EVENING IN WONDERLAND.

Maps of the United States, prepared since 1872, show in the northwest corner of Wyoming Territory, and stretching a little over into Idaho and Montana, a rectangular plat marked Yellowstone National Park. On the maps of an ordinary school geography it appears scarcely larger than one's thumb nail, but that is only because we own so much land "out west" that we cannot spare a great space on a map, even for a large region; for this which seems so small is sixty-five miles long by fifty-five miles wide, covering more than two and a quarter million acres, or an area a little larger than 99 townships, each six miles square, or an area so large that we might cut off from one end of our park a section as large as the whole State of Delaware, and from the other end another section as large as the whole State of Rhode Island, and then have left, between the two, a strip through the middle of the park three miles wide and sixty-five miles long.

Here nature has assembled, as if for the very purposes to which our national government has wisely devoted the region, such profusion of her rarest wonders, manifesting such marvelous phenomena of geysers, solfataras, fumaroles, and mud volcanoes, amid such sublime and picturesque scenery of lakes, mountains, rivers, valleys, canons, cataracts, cascades, cliffs of obsidian, petrified forests, and curiously eroded and brilliantly colored rocks, that its early explorers gave it the name of Wonderland, a title which all who have visited it deem very appropriate. It is on both sides—but mostly on the east side—of the main range of the Rocky Mountains, a little of the southwest corner of the park draining into the Pacific through the Snake River, the great southerly branch of the Columbia or Oregon, which no longer

> "Hears no sound
> Save its own dashing,"

since the steamer's paddles now vex its waters, the roar of the railroad train echoes along its Dalles, and the hum of varied industry rises from its fertile valleys. All the rest of the park drains through the Madison and Gallatin (which are the middle and eastern of the three streams which unite to form the Missouri River) and through the Yellowstone,



which is the greatest tributary of the upper part of the Missouri, and is longer than the Ohio or the Rhine. As it is situated between 44° and 45° N. Lat., its valleys ranging from 6,000 to 8,000 feet above the sea level, and the mountains which separate and guard them rising to from 8,500 to 12,000 feet above the sea, the park is too cold for farming, though, except along the rocky summits of the loftier mountains, and for a short distance immediately about the hot springs, solfataras, fumaroles, and salses, there is generally a fertile soil, well timbered with pines, spruces, firs and other conifers, or covered with excellent and most nutritious grasses. Being a volcanic region (except in its northeast corner where there are a few silver mines) it contains no metals or minerals of commercial value but sulphur, which it will not pay to freight out of that region for many years to come if ever, as very extensive sulphur deposits exist much nearer the line of the Union Pacific railway, near Evanston, Wyoming Territory.

Into the interesting story of its discovery and exploration I have not time to enter at any length to-night. So far as known, but three white men—JOHN COLTER, JAMES BRIDGER and ROBERT MULDRUM had ever seen it before 1863, when gold miners from Montana began to stray into it in search for new mines. COLTER was one of the hunters of LEWIS & CLARKE'S party sent out by President Jefferson in 1804, to explore the Missouri, and to cross the Rocky Mountains and descend the Columbia to the Pacific. On the return of the party, in 1806, Colter was honorably discharged and remained to hunt on the head waters of the Missouri. His fearfully thrilling adventure with a party of Blackfeet Indians is related by Irving in "Astoria." Undismayed by that narrow escape from death, he again outfitted and returned to the region about Henry Lake, a little northwest of the park, and lived for a time among the Bannock Indians, and about 1810, floated in a canoe some 3,000 miles down the Missouri river, to the then extreme frontier territory of Missouri, and told of sights and scenes in the Rocky Mountains along the upper Yellowstone, Madison, and Snake rivers, which we now know to be even far more wonderful than he reported them, but which for more than half a century few people believed to have any existence, outside of Colter's imagination. This general incredulity was strengthened by the successive failures of various parties to find these wonders, which was owing to the fact that these parties tried to enter the region from the south or east, instead of from the west or north, and were baffled and forced to turn out of their course by the very lofty and rugged Sierra Shoshone, or Wind River mountains, across which no way was ever found till Capt. Jones's party in 1873 discovered Togwotee Pass, and demonstrated that the range was not, as had been supposed, utterly impassable. But as Togwotee Pass is 9,621 feet above the sea, while the passes and canons on the west and north sides of the park enable us to enter it at elevations varying from 6,000 to 7,000 feet above the sea, it is evident that the natural routes into the park must always be from the north and west, following up the valleys of the Yellowstone, the Madison, and the Snake rivers; so that though nearly all the park is within the territory of Wyoming, most of the travel to it will always go through Montana, or if not through Montana, at least to the southwest corner of that territory, where, out of the northwest corner of the park, the Madison pours its crystal waters through the magnificent gateway of its middle canon, whose grandeur is a most fitting portal to the countless wonders of the park. The first account of the wonders of the park, it is claimed, was published in 1867, in the Frontier Index (then issued at Ft. Kearney, Neb.). Few people, however, ever saw or heard of this, and the first accounts which attracted any considerable attention were printed in

Montana newspapers in the autumn of 1870, and the winter of 1870–71, and in "Scribner's Monthly" and the "Overland" in the spring of 1871. These excited so much interest that the U. S. Geological Survey, under Prof. F. V. HAYDEN, visited the region in the summers of 1871 and 1872, and their first report caused congress, by unanimous vote of both houses, by an act approved March 1, 1872, "to withdraw from sale and set apart as a national park, or perpetual public pleasure ground," the area before mentioned, its boundaries being so fixed as to include the chief wonders of the region; so that we are assured of the permanent possession of this largest and most wonderful park that the world has ever known, free of all those petty exactions and vexatious impositions from private ownership which so greatly mar one's enjoyment of Niagara and many other pleasure resorts.

The National Park should not be confounded with the North, South, San Luis, Middle, and other smaller parks of Colorado, which are strictly *natural* divisions of land, being more or less extensive basins of level or undulating land, walled in by lofty mountain rims, and, doubtless, the beds of ancient lakes. Such basins are common in the Rocky Mountains, and the National Park contains several of them, the most notable being the basin of the Upper Madison between its second and third canons, and the basin of the Upper Yellowstone above its grand canon. Interesting, geologically, and charming, scenically, as are the Colorado parks, no one nor all of them together contain any such unique and marvelous scenes as the National Park, and they can no more rival it than a mill-dam can Niagara. The chief wonders of the park are:

1st. The upper and lower geyser basins of the Fire Hole or Madison river, the Shoshone Lake geyser basin, and various smaller geyser basins scattered through the park, containing scores of geysers, spouting at various intervals crystal clear, boiling hot water in columns, varying with the size of their orifices from a few inches to twenty feet in diameter, to heights all the way from 8 or 10 to 250 or 275 feet, the eruptions being accompanied by constant subterranean thunderings like a mighty artillery duel, of from thirty to seventy shots a minute, each explosion jarring the ground with a miniature earthquake and pulsating up the column, shivering it upward and outwards in jets of silvery spray, while vast banks and lofty pillars of steam, crowned and fringed with rainbows, and swaying in the wind, and assuming countless fantastic forms, add to the weird beauty and surpassing grandeur of the spectacle. No geyser spouts constantly, though some small ones are in eruption most of the time. The duration of the eruptions varies as much as the height and size of the columns, ranging all the way from three or four minutes to as many hours, and sometimes even to nine hours, and their frequency also varies, Old Faithful spouting every sixty-five minutes for from four to six minutes, sending up a column 7 feet by 2 feet, to heights ranging from 125 to 175 feet, while the other large ones spout at irregular intervals varying all the way from two or three hours to as many days or even weeks. No other geyser in the world except Old Faithful is known to spout regularly and so frequently. The best idea one can form of a geyser eruption *without seeing one*, is to think of a cataract rushing up to con-firs and other conifers, or covered with excellent and most nutritious grasses. Being a volcanic region (except in its northeast corner where there are a few silver mines) it contains no metals or minerals of commercial value but sulphur, which it will not pay to freight out of that region for many years to come if ever, as very extensive sulphur deposits exist much nearer the line of the Union Pacific railway, near Evanston, Wyoming Territory.

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2d. The Yellowstone Falls and Grand Canon. The two falls, the upper 140, and the lower 397 feet high, are a little less than a half mile apart, and midway between them Cascade Creek leaps into the river from the west side down the picturesque Crystal Cascades 129 feet high. These falls and cascades are at the head of the Grand Canon, a gorge about 25 miles long, with walls from 1,000 to 2,500 or 3,000 feet high, cut through volcanic rock which has weathered into countless quaint forms, and which, from the water's edge to the top are a dazzling, bewildering maze of the most brilliant and gorgeous colors. Here are hundreds of acres of yellows from gold to pale straw, and of reds from carmine to pink, all intermingled with white, and brown, and black, and gray, and russet, and buff, and cream, and olive. There is no approach to stratification of rock nor to regular arrangement of colors, but all the glories of the autumn woods, and all the splendors of the sunrise and the sunset are fixed in these wondrous cliffs, and made as eternal as the everlasting mountains. It is the one utterly unequal and indescribably glorious stretch of rock scenery, whose boundless wealth of vivid and varied color one can never expect to see elsewhere on earth.

3d. The mammoth hot springs of Gardiner's river. These springs are not silicious, like those of the geyser basins, but calcareous, and on the steep slopes of White Mountain have deposited their calcic carbonate and built up a series of terraced basins, most brilliantly colored without and within, and ornamented with countless beautiful forms of rock deposit like coral, or bead work, or the corrugated surfaces of shells, or half-opened flowers, or leaves, or frost work, so that by many these are considered as more beautiful even than the geyser basin hot springs. The only other similar cluster of springs known in the world is in the northern island of New Zealand.

4th. The Yellowstone lake, which, though almost on top of the Rocky Mountains, at an altitude of 7,788 feet above the sea, is large enough to float all the navies of the world, covering 300 square miles with the clearest and coldest of water. It has a shore line of 175 miles, is in places 300 feet deep, contains several beautiful islands, has on its shores numerous clusters of hot springs, mud springs, and small geysers, is surrounded by grand mountains abounding with game, and its waters swarm with trout and are the summer home of countless swans, geese, ducks, pelicans cranes, and other water fowl. At one place a little way out in the cold water of the lake, a hot spring has built up a rocky cone by the same process of depositing the mineral held in solution in its waters as in the case of those described in the geyser basins; so that one may stand on the crater of the spring, and catch trout out of the cold water of the lake and without moving out of his tracks, turn round and boil them in the spring.

5th. The solfataras, fumaroles, and salses or mud volcanoes, which from thousands of openings pour out sulphurous steam or hot water, with much noise of hissing and boiling, or spout mud, thin as mush or thick as hasty pudding, sometimes as much as 275 feet high with all the phenomena of noise and steam and jarring of the ground which accompany geyser eruptions.

6th. The fall, cascades, and curiously-eroded rocks of Tower Creek, which, near the foot of the grand canon, out from among jagged pinnacles of almost black, amygdaloidal lava, leaps down 156 feet, making a exist in all mountainous and hilly regions, and many are found in the eastern half of our country though none which approach in grandeur or extent the more remarkable ones in the Rocky and Sierra Nevada Mountains.

All the great trunk lines of railroad from the valley of the Mississippi to the Atlantic seaboard pass through or near canons, of much interest geologically and scenically. The more northerly lines, the Great Western, the Canada Southern, and the Lake Shore and Michigan Southern in connection with the Erie or the New York Central will take us across or alongside of the canon of the Niagara below the falls. Farther east, the Northern Central or the Erie will take us to Watkin's Glen, or the Delaware and Hudson Canal Co.'s lines to Au Sable chasm; on the Pennsylvania railroad, Jack's Narrows and Lewiston Narrows; on the Baltimore and Ohio, that famous gap where the Shenandoah breaks through the Blue Ridge to join the Potomac, of which Jefferson said. "It was worth a journey across the Atlantic to see it;" on the Delaware, Lackawanna and Western railroad, the Delaware Water Gap, where the Delaware breaks through the Blue Ridge; on the Lehigh Valley railroad, and the N. J. Central railroad, the wild canon through which the Lehigh river foams for many miles above the picturesquely situated town of Mauch Chunk, and the Lehigh Gap through which the same stream breaks out of the mountains some miles below Mauch Chunk; on the Chespeake and Ohio the canons of the Kanawha and Cheat Rivers, and on the Piedmont Air Line the famous Tallulah (to which it is to be hoped many of you will go at the close of this meeting,) are some of the more noted canons easily accessible by rail in the region east of the Rocky Mountains.

In the new and happier era of development and growth which has dawned on the South, the rapid extension of railroads into the mountainous regions will soon make easily accessible many sublime and picturesque canons which are now almost unknown, and make them as popular resorts for Northerners as well as Southerners as are those already named.

Unexpectedly one comes now and then on charming bits of scenery, which are all the more delightful because unlooked for, and a few years ago I found such a bit, in one of the most beautiful of all the little canons that I have ever seen east of the Rocky Mountains. It is on the Cuyahoga River, only about thirty miles from Cleveland, Ohio, in a region so nearly level that I had not dreamed of such a thing as a canon existing there. The Cleveland, Mt. Vernon & Columbus railroad runs along the whole length of it on the south bank, but your views from the cars will be so unsatisfying that you will wish to stop over at the pretty little village of Cuyahoga Falls, and wander through the gorge.

Regarding the eastern as well as the Rocky Mountain railroads, however, we should remember that much of the finest scenery is only to be seen by stopping over, here and there, and going a little away from the line of the road.

I regret that I can present to you views of only a few of these eastern canons, but I have found it difficult to obtain good views of many of them which would illustrate the points which I wish to present to you.

Every tourist to the National Park will wish either on the outward or the return journey, to stop over for a time in Colorada, where the Rocky Mountains attain their greatest elevation in our country. There are about 200 peaks in Colorado more than 13,000 feet high, and about 100 which are upwards of 14,000 feet high, the loftiest—Blanco Peak—being 14,464 feet high, and there is no *pass* known across the main range in Colorado less than 9,590 feet, while as soon as we go north of Colorado the main range diminishes in height so remarkably, that there is not a single peak between the northern line of Colorado and the Canadian boundary which reaches 14,000 feet in height, and but very few which are as much as 13,000 feet high, while the *passes* north of Colorado instead of ranging, as in the Centennial State, from 9,590 to 13,100 feet high, are many of them only from 6,700 to 7,500 feet high.

In crossing the continental divide over these lofty passes in Colorado, there are some of the most remarkable specimens of audacious railroad engineering in the world, but as we are in haste to reach the Park we will defer seeing them till our return trip, and going directly from Omaha to Ogden and thence to Dillon we shall be surprised to note how low and easy are the passes by which we twice cross the main range of the Rocky Mountains, and are astonished to find that the great continental divide, which a few years ago was thought to present an insuperable barrier to a railroad across the continent, actually offers, over these northern passes far less engineering difficulties than the various ranges of the Appalachian system.

On all the more than 1000 miles of our route among the Rocky Mountains from Cheyenne to the Park, we shall cross no range over which a railroad could not be graded, ready for the ties and rails at far less expense than was required to cross the Allegheny Mountains at the famous Horse-Shoe Curve on the Pa. R. R., or the Blue Ridge, at the far more difficult Swannanoa Gap on the Western Railroad of North Carolina, and we shall find no range where there is need of any tunnel one fourth as long as the famous Hoosac Tunnel, which, in western Massachusetts, pierces a low range whose highest summits are lower than the lowest valleys in most of the Rocky Mountains.

VIEWS PRESENTED ILLUSTRATING THE LECTURE.

Supposing the audience about to start for the park the lights were turned down, and on a twenty-foot screen there were shown by the calcium light stereopticon upwards of 50 dissolving views, all photographs from nature, and many of them elegantly colored. A map of the western half of the United States emphasized, for a Georgia audience, the size of our country, when the speaker declared that not only Ohio, Michigan, and Indiana, but even Minnesota, Iowa, Missouri, Arkansas, and Louisiana are really *Eastern* States, and that the real *Middle* States are Kansas and Nebraska. Beautifully colored moonlight and sunset and sunrise views of the Hoosac Tunnel and the range through which it is cut, and a view of the famous Horse Shoe curve on the Pennsylvania railroad, served to fix the attention on the lesser difficulties of crossing the main range of the Rockies through several of its low passes, owing to the gentler slopes, while admirably clear views along the Pennsylvania railroad of Jack's Narrows, Allegrippus, Hieroglyphic Rocks, and Pulpit Rock on the Juniata river, and on the Lehigh Valley railroad of Mauch Chunk and the Lehigh Gap in the distance, showed some of the eastern canons, and the beautiful forest scenery of the Allegheny Mountains, whose dense growth of deciduous trees gives so much greater variety and beauty of wooded landscapes than the coniferous forests of the Rocky Mountains. Maps of the park showed the routes into and through it, and the location of its chief objects of interest. Then followed views of Sentinel Rock with its close resemblance to the face of a Sphinx; The Tower; The Lone Maiden, a curiously eroded rock whose remarkable resemblance to a fashionably-dressed woman with a wealth of hair flowing loosely down the back naturally suggests its name, and might easily have given the hint for the origin of the "tie-back" style of dress; two cascades and five cataracts; two general views in the geyser basin; nine views of seven of the great geyser craters; a daylight and a moonlight view of the eruption of Old Faithful geyser, spouting its column, 7 feet by 2 feet from 125 to 175 ft. high for from four to nine minutes every sixty-five minutes; a moonlight view of the eruption of the Giant geyser, which at very irregular periods spouts a column 5 feet in diameter, to heights ranging from 150 to 250 feet, while an immense pillar of steam towers above the water, sometimes a clearly defined column from 1,200 to 1,500 feet high; an elegantly colored sunrise scene on Yellowstone lake; moonlight views of the Giant's Gateway in the canon of Gardiner's river, and of the west shore of Gallatin lake; a view of a crater of the mud volcanoes on the west bank of the Yellowstone river; a hunting scene on Alum creek; four views of specimens: 1st. Of curiously ornamented siliceous pebbles (such as abound about the geyser craters). 2d. Of silicified wood. 3d. Of petrified grasshoppers. 4th. Of amethysts broken out of the silicified trunk of a tree; two views of the grand canon of the Yellowstone; nine views of the mammoth hot springs with their wonderful terraces and ridges; three views of the ornamental hot springs of the geyser basin, and three views of the empty crater of the Periodical Hot Lake, with its strangely beautiful interior ornamentation of limestone deposited in singularly accurate imitations of ferns and acanthus leaves, concluding with the crater of an extinct geyser, 45 feet high and 22 in diameter at the base, called, from its shape, the Cap of Liberty, and very appopriately surmounted by the stars and stripes. Each view was briefly described and its more important features pointed out, while incidents of personal experience, humorous and otherwise of the lecturer, who with his family, made two journeys through the park in 1873 and 1875, added something of human interest to the strange beauty and wild grandeur of our far Western Wonderland.

NOTE. Since the delivery of this lecture at Atlanta, I have made my third trip to the National Park, conducting my first annual excursion party to it. While in the Park I learned that a new pass was discovered last August across the Sierra Shoshone, which is nearly 2000 feet lower than Togwotee Pass. It is not, however, as favorable for a road as the passes on the north and west sides of the Park. While I noticed some changes in the hot springs and geysers, I think there is no diminution of the total amount of activity. An immense volume of water is thrown up about 100 feet high several times a day by the new geyser which broke

out in 1878 at the Midway Group, and might very appropriately be called the Mammoth, as it is the largest known in the world, its crater covering more than an acre. Three new craters have been added to the two which broke out during the winter of 73–74 in the Upper Geyser Basin, and the entire group has been named The Five Brothers. Old Faithful spouts as regularly every 65 minutes, and as grandly as ever.

Adjourned until the forenoon of Friday.

Fourth Day's Proceedings.

FRIDAY MORNING, JULY 22, 1881.

The Association met at 10 A. M. Prayer was offered by President J. MARTIN.

F. LOUIS SOLDAN, of Missouri, read the following paper on

THE CENTURY AND THE SCHOOL.

We are told by philologists that our forefathers in making the myths which we find in their poetry and legends were wiser than they knew. In these myths modern philology has discovered wonderful truths. It professes to know more about Apollo than the Greeks, more about Jupiter than the Romans, and more about Thor than the Saxons of the North. When it is thus the practice to invest ancient myths with modern meaning, we may be allowed to select one of these myths for the purpose of this paper, and try to find in ancient lore the foreshadowing of a modern view.

There is no story more prevalent in northern mythology, than that of little beings, gifted with extraordinary powers. In the tales of Scotland and of old England the little Brownies play an important part. They sweep the floor which the servant has neglected, they do the work which the lazy mortal has forgotten to do. They are the working spirits, the little active principles. So in the mythology of the Norse peoples, the giants and Gods, powerful in stature and deeds, seem in reality dependent for their weapons, armor, and all their worldly goods upon the diligence of those little dwarfs, who are the types of wisdom and industry. To their skill the gods and giants owe the arms by which alone they retain power and sway. And yet these little beings live removed from the eyes of the world and from the light of day. In modest retirement they are the guardians of the highest treasures of mountain and mine. In the darkness of the caverns they toiled and labored, they ply the hammer and make for Odin the never-missing spear, for Thor the terrible hammer, they build for Freya the free ship, and they weave the golden hair of the goddess of the earth.

If we are allowed to carry into this story an explanation of our own, it seems as if the ancient myth foreshadowed a discovery of our century, namely, the truth that the events of nature and of the world are not brought about by Titanic revolutions, but are the result of the silent and persistent forces which work quietly and unobservedly in every atom and cell. Apparently insignificant processes which surround us everywhere and at every moment, are sufficient to account for all the changes in nature. The little forces shape the world, and not the gigantic revolutions of which former theories spoke.

This recognition of the power of the silent and little forces of nature, which work out of sight, in the depths of the world, is the view peculiar to the science of our century. Our century has discovered these little powers and observed their work in nature. While former theories saw in the surface of the earth the result of great revolutions and sudden upheavals, the science of our century has found that all these forms of geological life are due to the steady work of forces which surround us and which we can observe in their activity every moment. It is the little and insignificant cause which creates and sustains the great and gigantic phenomenon. Before the examining glance of science, whatever is great dissolves itself, and appears to be the work of what seems small and powerless. Those bold cliffs and mountains which protect the South of England against the fury of the sea, appear to the inquisitive eye as untold myriads of little shells which in slow accumulation have formed mountains. Society too has its little powers which, compared with the gigantic interests of modern times, with politics, commerce, and the wheel-works of manufacture and transit and trade, appear insignificant and small, but which nevertheless in modest retirement drive the wheels and move the loom of time. Among these small powers, in which our century has recognized a creative and preservative power which supports the State and sustains social life, there is none humbler but at the same time more significant than the school. Like those little mythical beings of the old Norse story who wrought the arms by which the giants of the world maintained their sway, the school creates for the State the arms against barbarism and crime, the school in the opinion of our century, builds the throne on which liberty can safely rest, it covers the earth with the golden harvest of the peaceful arts. Like the Brownies of northern mythology who were the guardians of great treasures, education and the school are the guardians of the great treasures of humanity, of knowledge, morality, and law.

According to the view which our century takes of education, the school should not only be the guardian of the ethical treasures of mankind, but also the servant of the aims and the objects of the times.

All callings have a narrowing influence on those that follow them, and the teacher is not free from the narrowing influence of his humble vocation. "In narrow work the mind itself grows narrow" is a true saying. Too easily we cling to what is traditional and old and a time-honored custom, and it is sometimes necessary to remind ourselves of the old saying of the Roman teacher: "Do not educate the child for the school but for life!" It is a just demand that the school should move along with the progressive movement of society at large. Thus it appears that the school should be guided by the wants of society; but the features of society change more quickly than the waves of the river, and never more than in this age of quick growth and quick decay. The work of adapting the school to the changing demands of the times is not an easy one. But that system of schools which does not move and develop with the motion of the times, is not carried along on the fresh wave of public opinion, and loses its place in the sympathies of the people. To keep pace with the development of society and science, to assimilate what is new, without discarding what is good in things traditional and time-honored, to appreciate new demands and new interests without injustice to what is old and tried, this is the task of that education which means to be what it ought to be, namely, the true servant of the noblest aims of our century. The pupil shall enter life not with his face turned backward, like one who has been trained in the lore of the past only, not like a wanderer in the bewildering mazes of an unintelligible, unknown world, but rather as a new reaper steps into the field to engage in work for which his education has endowed him with taste and ability. Thus, growing upon the fresh soil of the century the school sends thousands of strong roots into the life of the nation and sucks new power out of the throbbing heart of the century. Those epochs in education are the greatest, in which the school has been roused from dreams of the past, and linked afresh to the bright life of the present. The glorious rise of the school during the time of the reformation, began with the moment that Latin ✓ was displaced from its universal position in all the schools, and the vernacular was taught to the people to enable them to read the newly-translated Bible. What seemed to many the ruin or the giving up of the characteristic task, the teaching of Latin, was in reality the beginning of the modern era in education, during which schools have grown so wonderfully that no mediæval mind could conceive of such a growth, and no historical parallel can be found.

The next powerful impulse was given to the school by Bacon when he confronted the humanistic book-wisdom, and the Aristotelian authority by emphasizing the neglected study of nature. With the moment that Pestalozzi's spirit conceived the idea of educating the masses, an idea ignored by Locke as well as by Rousseau, with the moment that Pestalozzi wedded the school to the life of the nation, in which we live at present, the new era in education began. The school of our days will not lose anything by embracing fully and unreservedly the spirit of our century. The influence of the school is powerful and stirring in proportion as it conceives and recognizes the noblest aims and endeavors of the century and tries to teach in accordance with them. Not only usage and traditional methods, but also reason and progress should regulate school institutions.

> " Custom calls me to it—
> " What custom wills, in all things should we do it,
> "The dust of antique time would lie unswept,
> " And mountainous error be too highly heaped
> "For truth to overpeer.

Thus then, our century demands that the school be the guardian of the best aspirations of the times, but it should also be the servant of those interests which do not belong to any particular time, but to all times namely, the general ethical interests of humanity.

Our century deserves that the school be subservient to it, for no other age has, even approximately, recognized the value of education as much as the present, or expressed its appreciation in such an active way, by the establishment and support of the most wonderful educational systems..

"He who controls the education of a nation"—says Leibnitz, "controls its future." The assurance of the duration and perpetuity of free institutions, lies in the possibility of educating a nation so as to make the masses with whom ultimately the government of a country rests, intelligent and responsible rulers in their own affairs.

There is probably no other institution which has been made so extensively the subject of attacks and abuse, as the school. It has been blamed for educating too much and for educating too little. It has been censured on account of not doing enough to prevent crime and criticized for not doing enough to produce wealth. It has been arraigned as an enemy of physical health of youth. Every class of specialists has demanded that the school should do something for the promotion of its art, and has denounced it for not doing enough. In all these things it is evident that much is expected from the school. But even in the unreasonable demands made upon it, there is an element not entirely unsatisfactory to the friends of education, namely, that all these demands imply an almost boundless confidence in the power of education. It is reasonable to suppose that the school can do much, but it is foolish to imagine that it can do everything. The century has great faith in the efficiency and power of the school. In all the evils which beset the body politic, the school is expected to furnish some remedy which will cure or prevent them.

This belief is characteristic of the century, and we do not find fault with it, even when it speaks in exaggeration of what the school can do for the state, and when it forgets that there are many educational factors besides the school, that life, family, civil vocations, the press, the pulpit are just as important and responsible factors in education as the school. Neglects and errors in education cannot and should not be charged to the school alone.

There are two distinct classes of demands, however, which the century makes upon the school. The one is, that the school shall be in harmony with the practical aims and with the spirit of the times; and the other, that it shall help to guard those interests which are as old as the human race itself, namely, the ethical interests which alone constitute—*make or render* man a *civilized* being, and make uprightness and charity part of his nature. The demands of the century on the school are then, first, of a practical, and second of an ethical character.

If the practical demand is that the school should accord with the spirit of the century, it becomes necessary to inquire what the spirit of the century is, so that we know according to what standard the school should shape its course.

Every age has its own features which appear strongly marked in its *history*, art, science, religion, politics, and society; and, as the features *of a human being* change and are ennobled in the course of a thoughtful life, so the features and the aspect of the times change with each newly discovered truth, with each world-historical deed. The eternal fountain out of which the deeds and thoughts of a nation arise wells up forever. The poet says, "Ever over the path of mankind flashes, like lightning, eternal truth." And thus the features of the time are subject to perpetual changes.

May we then be allowed to draw, with a few lines, an image of the times, as they appear to us, without ignoring the truth that the times are not always as they appear to the painter; remembering, however, that much of the portrait depends on the artist who draws it. The one may paint his century with the brush of Tintoretto, with bright lights and deep shadows, while the other may portray his century in a picture after REMBRANDT's fashion; the head and brow radiant with light, but the heart covered with black shadow and gloom.

In the beginning of the last century American life was still knit together with the life of England; and the history of Europe was that of America, and therefore in considering European history for a moment, we consider what was then American history as well.

In the latter half of the last century, mankind seemed to rise and to shake off the fetters of mediævalism, which still clung to its limbs and held it in a state of social and political bondage. The dormant energy of the race awoke; an era of new activity sprang suddenly into existence. In politics, in science, in art, a new epoch began. It was a revival which was perhaps more transitory, but certainly not less important than the great revival of the 14th and 15th centuries. As in the earlier revival of *learning*, when art broke with the conventional and byzantine models, it seized again upon the classical art-forms of antiquity, so, in the revival of liberty, the last century resuscitated the political forms of antiquity, the idea of the Republic was revived, and into this old form the century poured its new life.

Yorktown, 100 years ago, ended forever the dream of a monarchy in America, and the success of the new state in its struggle reanimated the ideas of liberty in the old world. New America and New France arose. Fresh light shone forth from the fields of science and art. As on one side were the political, so on the other, were the scientific systems remodelled and re-created. The French revolution brought about a new order of society, French science produced a new classification of the kingdoms of nature, French legislation gave us the only thoroughly modern code of laws, French commerce adopted a new division of weights and measures. All this manifests the strong revolutionary character of the period. In the department of letters the same strong pulsation was felt, and the heart of the world throbbed again with a great period of literary and intellectual life. The great names of this movement tell its history. In philosophy, CONDILLAC, VOLTAIRE, D'ALEMBERT, LA METTRIE, HUME, KANT; in literature, BEAUMARCHAIS, DIDEROT, MARMONTEL, MONTESQUIEU, ROUSSEAU; in science, BUFFON, DAUBENTON BRISSON, GEOFFROY ST. HILAIRE, CUVIER, JUSSIEU, BIOT, SAUSSURE, WATT, FRANKLIN, JENNER.

It is hardly necessary to say, that this revival of the scientific and literary spirit was not confined to France alone. The Italian CANOVA, for instance, the Dane THORWALDSEN, the greatest sculptors of modern times, GOETHE and SCHILLER, the great poets of Germany, belong to the same period. This time of almost feverish activity in science and politics was followed by decades of complete prostration caused by the fearful wars of the Napoleonic episode. A period of languid reaction in all the fields of intellectual work ensued. England, after 1815, rested exhausted and almost broken from its gigantic but futile efforts against the American colonies, or the United States, and against France.

France, whose revolutionary arms had over-run all Europe, had fallen into the hands of a soldier of genius, whom the combination of all the powers of Europe had dethroned and chained to the rocks of St. Helena. And now began throughout Europe a time of political oppression. The kings of the old world had called on their people, to drive out the French conquerors, but they soon became afraid of the spirit they had conjured up. They suppressed every manifestation of popular political activity. The press was shorn of its rights and deprived of its remaining freedom. All Europe was exhausted and rested languidly. The era of progress, so suddenly begun, found as sudden an end in a period of political decay which extended through the first half of the nineteenth century. The hope of humanity had fled across the Atlantic. America had separated her fate from that of the older countries, and was the only oasis of freedom in a universal desert of tyranny. While Europe had broken with the free political traditions of the eighteenth century, and was uprooting them with merciless fury, they were cherished and put into practice in America. The history of the United States forms a quiet contrast to this, in the growth of the noblest ideas which the revival of liberty had brought forth in Europe.

Literature gave evidence of this sudden downfall. The struggle against the existing order of things in society and law, was vividly depicted in the productions of the leading writers of this period. Highwaymen and corsairs became ideal types in fiction and prose. Byron in England, Alfred de Musset in France, Heine and Lenau in Germany, and perhaps Wordsworth, whose poetry turned away from man and society and glorified nature, were the representative names of the literature of this period of political sloth, inactivity, and stagnation. A kind of apathy had taken possession of the European mind, and the literature of this period has not unaptly been called the literature of world-despair. The more active elements of the European races turned their back to the land of brutal oppression and found homes in the valleys and prairies of the great republic. The era of indifference gave rise even to a new school of philosophy. Kant's school, represented after his death by Hamilton, Comte and others—which had arrived at the conclusion that there could not be much certainty about external things any way,—and the Hegelian school with its encouraging optimism was followed by the dreary school of Schopenhauer who saw in death and rest the only true happiness of man. The political atmosphere was stifling; the governments were leagued against their peoples. But, what was invulnerable to attack was not safe against aspersion. Satire and scepticism, Punch *and Thackeray,* took their place in the literature of the day and in the art of the period. Inactivity became a political doctrine. A kind of ethical materialism arises in refined society which seeks to ameliorate the emptiness of existence by sensuous enjoyment.

While this was the drift of the surface-culture, a fresh under-current gradually but steadily welled up from the deepest heart of the people, and a wonderful wave from economic and social springs led to a regeneration of public life. Creative power, of which governments seemed devoid, still lived in the sinews and marrow of our civilization, and it burst forth through the channel of the industrial activities and invigorated afresh the old world. Practical life lightly blew away the cobwebs of the literature and metaphysics of quietism. The era of indifference came to a sudden end, when a new revolution, like an electric shock, passed over the world in 1848. Thirty years of political commotion followed, during which great nations like Italy and Germany sprang into existence, and the noble new republic of France was established in the midst of unspeakable difficulties. During all this time the star of our republic had risen higher in the western skies, and growing in splendor until it outshone all other constellations, dazzled the eyes of the world. A people had risen out of nothing to rank as the first nation of the earth. The depression of the old empires served only to raise the new empire higher. The miseries of Europe were the prosperity of America. Each act of oppression, each new revolution choked in blood had thrown myraids of strong men and women on the shores of the republic. This period of decomposition and destruction of the old world, was an unceasingly creative era for the United States. Here a continuous, peaceful growth had matured the political ideas which the last century had taught, and on whose destruction and up-rooting the European governments had wasted their energies. Here, out of separated colonies a confederation of states arose. It was the era of a *more* perfect union which culminated in the creation of the United States. A process of unification had begun, and its first stage went on through sixty years of the nineteenth century, during which time, in the fermentation of political agitation, the disintegrating questions arose to the surface, ready to be taken off. Up to the time of the civil war, the nation was still divided by the incompatible systems of slave labor and competitive work, and by an honest diversity of opinion in regard to constitutional provisions. But these distinctions having been removed by the results of the war, an arbitration honestly and conclusively accepted by all sections of our country, a new era has now commenced, and we may say it boldly,—although the feeling of the sore may remain for a while after the wound has fully been healed,—that the era of the past twenty years has put in place of what the Constitution calls a *more* perfect union of the states, the *most* perfect union of South and North, a union which will last forever because it is now based on a community of interests. The past history of America, more wonderful than a fairy tale, is but "an earnest of what shall be." We stand just at the beginning of the most brilliant part of the new century, and already we see the process of unification going on and completing itself in a thousand ways. What a wonderful history was ours, even while the land was divided in itself! What untold possibilities are there in the future now when South and North have the same hope, the same aspiration, and mingle their energy in one mighty current!

Before the beginning of this era, of which twenty years have elapsed, one might have drawn a line across the continent and said: "Here ends the community of interests; here is the North and there is the South; here is agriculture and there is manufacture and commerce; here is black, there is white labor; here are emigrants, there are slaves; here is public, there is private education." But twenty years of the era of complete unification have passed and where is this line of demarkation now? It has vanished in the quick process which now is forming the most perfect union of all times. Already it is impossible to designate the South as an exclusive agricultural and the North as the exclusive manufacturing division. Look about you in this great city of Georgia. Look at the magnificent homes of the citizens that have risen out of the ruin and desolation of war; look at the stores filled with the treasures of Southern workmanship, and at the factories in their restless labor, at the streets crowded with the vehicles of commerce, and you will see that the South has taken hold of the problems of the new Era. North or South, it is the same people, the same characteristic energy.

Already it is impossible to draw the line between North and South and to say: public schools here, private schools there. Much remains to be done yet, but, on the other hand there is no feature of the last twenty years that calls for more sincere admiration than the noble work done by the South to educate her people, both white and black.

The political features in the history of the century, great as they are, brilliant as they appear, are after all, only details. The spirit and essence of our century lies not in the great political actions of the age, not in the pomp and splendor of war, but finds its motive powers and levers rather in the quiet shop of the artisan, in the busy counting-room of the merchant, and in the retired laboratories of science. By the invention and perfection of machines the labor of the artisan and mechanic has lost its old form. The production of and manufacture of articles for the needs of human society, has experienced almost infinite expansion. The constant coöperation of many hands necessitated by the new form of production, and on the other hand the desire to facilitate the exchange of the multitude of products, has led, with other causes, to the incomparably rapid growth of cities in Europe and America, and new problems for legislation and education have been created by city life.

Production on a vast scale requires also extensive means of transportation, and therefore the development of the latter keeps pace with the steadily increasing growth of factory work. The new means of transportation stand in the closest connection with the growth of manufacture, for without the machine labor of our century and its mass of productions, without the involved necessity of instant and extensive distribution of the manufactured articles, neither railroad nor telegraph could exist. The limit of the development of the one is the limit of the growth of the other. Our century has printing presses which can print, cut, fold, and fasten 30,000 sheets per hour, and the invention is capable of further development, but the true limit lies in the demand, in the number of readers or subscribers. It is useless to manufacture articles by the million which are demanded by the hundred only. This mass production which is characteristic of our century presupposes vastly increased consumption. The existence of countless factories and machines is in itself a proof of the fact of increased consumption. The enormously increased rate of production is intelligible only on the presupposition that each individual human being enjoys a greater share of those things which make life pleasant. If it is true that the possibility of civilization depends on a certain amount of luxury, and that no nation can make any progress in the former unless its labor has procured for it wealth and luxury, it follows that in a period like ours, where the individual commands more wealth, greater comfort, civilization and refinement can spread more widely and become the attributes of the masses of the people instead of remaining the privilege of the few. Of these characteristics of the century the school must take cognizance. In the past period of individualized labor each mechanic worked for himself, independent of all his fellow-workmen. The article made in the shop received its whole form, from the raw material to its finished state through the same hand. For this reason each workman had to be trained so as to master the whole process;—the mode of production which *our* century has invented demands extreme division of labor. A piece of work passes through many hands before it is completed. The individual worker no longer needs the knowledge of the whole process, but skill in a small part only of the process. It has become easier to learn a trade than it was formerly, but, for the same reason, the workman is less sure of retaining his position. In this complex system of divided labor each individual becomes dependent on the other, and individual independence in work has disappeared.

The new mode of production gives to labor the character of restlessness. The individual must do his work quickly and hand it over to the waiting hands of his fellow-workman, or the movement of the whole chain will be interrupted. The golden, comfortable easy time of the artisan of the past era, the pleasant, slow rythm of rest and work has disappeared, driven away by the whir of spindle and spool. Rip Van Winkle would wait in vain to-day for master tailor and master shoemaker to accompany him to the linden tree before the inn for their Monday-morning potion. The romance of rest with intervals of work, the romance of easy individual labor belongs to the past. In our century each man must labor as one of the grand army of workers, and obey the commands of his calling at all times, at all hours. If he wants to work at all, he must move in the strictly circumscribed course, and with the regularity and precision of a wheel in a never-resting, huge machine.

The feverish, restless motion which machine labor requires has exerted an influence on the mind which extends beyond the province of manufacture and commerce. It has marked the whole age with its characteristics, so that all the callings of peace and war bear the stamp of highest strain and energetic haste. The other characteristic of the century, namely, the rapidity and far-reaching impetus of the means of transit, has perhaps contributed still more than the changed forms of labor, to give to our century the peculiar characteristics of which we have spoken. For railroads and steamships and telegraph and postal facilities do not serve for the distribution of material wealth merely, they also communicate and distribute intellectual treasures and spread and scatter human sympathy and thought all over the world. The peaceful victories and conquests of mankind in trade and commerce, the inventions of genius, the wisdom and folly of political experiments are daily communicated by telegraph and press to all the cultured people of the earth. They also serve the ends of universal justice: the wicked tremble when they hear of crime denounced and punished; when they hear of the vindicated majesty of the law;—and noble hearts beat higher when they see that humanity, without distinction of language or race, defends and admires what is good and just. The sufferings of a nation, of a country find a thousand tongues and a responsive echo in the help of distant lands.

Travelling and the facilitated communication by letter, the press, the telegraph educate man's political sense by teaching him the political methods of other states. Nations become acquainted with each other, and discover qualities and interests which they possess in common. The existence of the American republic is a constant lesson and invitation to the nations of the earth, and France has profited by it in our own time. In no former age has the cause of self-government experienced such an advance as in our day.

Our century has given to liberty a new foundation. On the basis of economic interests modern civil freedom has arisen and become strong.

As a subordinate result of the perfection of the means of communication, it deserves to be mentioned that the stable or localized character of the civilization of former centuries has suffered considerable change. Nations intermingle, they see and know more of each other than formerly. To these characteristics of our century, our own country owes much of its wonderful growth. An event unheard of in all history begins and continues through the century, inaugurated by the leveling, equalizing tendencies of the 18th century. From all the parts of Europe a mighty stream of all races and tongues issues forth and pours its waves into the prairies and valleys of the new continent, and with marvelous rapidity they form a new nation, with sharply defined national characteristics; a nation welded together so indissolubly by the cohesive forces of free institutions, that even a terrible civil war cannot sever it. In former ages a small fraction of mankind was called the floating population. To-day the name may be given in a certain sense to almost the whole world. The individual no longer knows with absolute certainty that he will finish his days in this or that town. Not many persons to-day will resemble KANT, the philosopher, in this respect, who never in his life went twenty miles beyond the limits of the little city in which he was born.

I have attempted, as far as the narrow limits of my ability and the *allotted space* of time would allow, to draw a picture of the century in which we live. We cannot withdraw from its influence. Goethe says:—"As if driven by invisible spirits, the sun-horses of the times run away with the light vehicle of our individual fate; and nothing remains for us but to grasp the reins with undaunted energy and, guiding to the right and to the left, to turn the wheels from rocks and precipice. Whither we go—who knows? Why, we hardly know whence we came."

It remains for us to consider how the school may be made servicable to the spirit of the century. The demands of the present period are not to be taken as substitutes for the ethical and generally human aims of the school of all times, but rather as their complement. The latter must not be contradicted by the former, for the ethical aims are of imperishable and everlasting value. The education of the child to truth, virtue, humanity, to charity, and manly strength, aspires to aims as eternal and immutable as the stars above. But to these ethical aims the demands of the century are added. They are not new, but the old demands have become more pointed, more intense, and the tasks have been raised to a higher power.

Our age is an age of effort, work, and labor. The activity of the school is therefore directed towards a double task. The imparting of knowledge, and the formation of a habit of unremitting, steady industry. No principle needs more thorough inculcation than that: "I will do what I ought to do." Harmony between duty and will is the basis of moral culture and of individual happiness. Not only skill in his work, but love for labor and activity should be the gift of the school to the young being when he enters upon his path in life, if he is to find there satisfaction and happiness. In former epochs the aim of the civil education of the mechanic or artisan in his craft was the adaptation to and training for a special trade or calling, and the method was to lead him to isolated, independent work. The culture of our century demands work with others. Its principle is no longer *independence*, but interdependence. In the place of the knowledge of the whole process, the condition for excellence now is the utmost manual skill and dexterity in the detail. Formerly man completed the work and the tool was his assistant, now the machine performs the task and man helps it. Formerly his knowledge of the craft afforded to the workman protection against being pushed out of his place; now, in some trades the process can be learned by a tyro in a few weeks or days. Not unfrequently trades disappear altogether when a new machine has made them superfluous. Formerly the country boy might be trained exclusively for country life and the city boy for the city. Now, no certainty of future occupation can be inferred from present position.

These conditions the new school must consider. When the special trade no longer affords any security of continuous employment, a more comprehensive and more thorough schooling can impart to the boy greater powers of adaptation, and open to him a wider field. Machine labor has never lessened the value of intelligence and of steady character. For the very reason that the mechanical, spiritless work is done by fettered nature herself, the intelligent human power is enhanced in value. With every new machine, intelligent directive power becomes more indispensable, since by bungling or stupid labor the danger is multiplied to immense loss. The further the abilities of man are developed, the greater is the field in which he can choose a vocation. How many fields of labor, to mention a single illustration, are opened to the boy by a knowledge of a single study, that of drawing, which without such knowledge would remain closed to him.

School education, then, which does not merely educate the memory, but also the senses and the hand, increases the adaptability to the more stringent conditions of existence.. Not so much the mass and quantity of things known form the test of a good school, as the strength and skill of hand and eye, of judgment and will. The things taught are means, not ends.

The century demands that the school should work for life. The changes made in the most progressive school-systems, as for instance the introduction of drawing, of the manual training of the kindergarten and its cultivation of the senses, all these innovations give evidence of the responsive tendency of the school and of the teaching profession to do justice to reasonable demands. It is both unwise and unjust in criticising the schools to dwell exclusively on what ought to be done, and to ignore the great things already accomplished. Enough, it is true, remains to be done by school and teacher, and may the day never come when professional self-sufficiency thinks that our schools cannot be perfected. But the fact that there are things that have not been accomplished by the school is rather a basis for hope than for criticism.

"Labor with what zeal we will,
  Something still remains undone,
Something uncompleted still,
  Waits the rising of the sun."

Widened and extensive intelligence,—narrow and intensive activity, contact and sympathy with universal interests,—and devotion to the special vocation are the peculiar conditions of our century's life. The former teach man to find his place in life, the latter how to fill it. The school is carried along by this current. That flaunting wisdom which knows a little of everything and nothing well is worthless—"of all things a little, but one thing well" is a much better principle. The school must refuse to teach more than can be taught well. But, since the whole field of science cannot be grasped even in its elements, it remains the task of the school to fix its attention on those things which may be well learned by the child. The former mountebank-systems of teaching, which shouted in street and market how many things they could teach and which spread over everything, were shallow in all things. The principle of school education is depth and thoroughness in a few things, and then if there is time, general knowledge. Man may study a multitude of things, but one thing and if it were the smallest, he should know well. In regard to the selection of the subjects the decision rests on the question what is most important for the life of the day and for the life of humanity. In one thing that is thoroughly grasped, the mind seizes the whole world. "That teacher" says Goethe, "who understands how to present a single noble deed, a single good poem, so as to rouse the child's feeling performs more than one who teaches a whole series of lower forms of nature by shape and name; for the whole result is what we may know without all this trouble; namely, that man bears in himself more perfectly and more uniquely than all other beings, the image of God. The individual may be at liberty to busy himself with what attracts him, what he delights in, or what he considers useful, but the proper study of humanity is man."

The school should be of service to the nation also. Without intermission, year after year multitudes of emigrants arrive at our shores. The parents speak a hundred tongues, the child soon speaks but one, the language of his country. To each child the school gives a new tongue, to each home it sends a youthful interpreter of American life and institutions. The school is building up the nation. The child that has gone through a public school is an American, no matter where he first saw the light of the sun. Thus language, in all its forms, becomes the most important study of the school. It contains the key to all things, human and divine.

There is another demand of the nation on the school. Lessons of history should be taught and taught not simply as chronological curiosities, but as truths appealing to thought and to rouse and train patriotic feelings in the young mind.

Since the school is to prepare for life, both subject-matter and method of instruction should be living and real. The printed page is and ever will be a great medium for the conveying of information, but it is not the only medium. Besides mastering the printed page, the child should learn how to derive information from the greatest of all sources of information, greater even than books, namely, the world without and the mind within. Words remain empty caskets if left without a knowledge of things, which the child may gain by using his senses and by cultivating his power of observation. Things then should be studied, as far as the nature of the subject allows, and not merely their weak reflection in books. Without sense-training and the knowledge of things, words have but a dream-like existence. The school must not be merely a reading-room or recitation room, but must present, both in its selection of lessons and its apparatus a piece of reality and life.

In regard to methods of teaching, our century has firmly established the principle of self-activity and industry. The pupil cannot be independent, he is a child and needs guidance. He cannot be allowed to have his own way always. Nothing is more apt to weaken the child than the favorite maxim, to let the child alone, to let him do what he pleases. He must struggle for freedom from his own whims and caprices. He must learn to do what he should do. On the other hand, the boy must become independent intellectually, and, for this reason, he must learn to *find* knowledge in the objective world by his own eyes. Knowledge must be conquered, in order to be wholly possessed. The teacher may guard the pupil against hurtful errors, he may point out to him the road to knowledge, he may lead him, but he must not attempt to carry him. Without the charm of self-activity, even the new toy ceases to be of interest to the child. In the process of learning, therefore, the mind of the pupil should not be in the attitude of receiving, but rather in that of grasping knowledge. Schopenhauer says bluntly, but truly: "Truth that is received merely and committed to memory, sticks to man's organization like an artificial limb, a false tooth, a wax nose. . . . But knowledge gained by one's own thinking resembles the natural limb; it alone belongs to us fully."

The century has a democratic, equalizing, and harmonizing tendency, and the school partakes of it. The increase in the facilities of inter-communication gradually effaces the external differences between nations, and dulls the sense of the individual in regard to these distinctions. Here again the school is guided by the spirit of the century. No caste, no social barriers which separate man from man are recognized in the school. The school unites in its precincts the children of the rich and of the poor, of all classes of society, of all nationalities and of all creeds; all receive the same education. Education has become the temple of the nation; all believe in it, all are united in its support; in its walls dwells the whole future generation. Everywhere the tendency becomes apparent, to efface unreal distinctions, and to make the individual the image of the noblest features of humanity. The school has become the most universal of all human institutions. In all of them there are divisions, in it there is none. Education embraces with the same love, Jew and Gentile, for it sees the type of humanity in each child.

We have touched rapidly upon many a question which seemed worthy of a more thorough and detailed examination; and others have slipped altogether through the wide meshes of this lecture. But let us, in conclusion, devote a moment to that side of education which no age can transform, and no century can alter; to that side of education which does not prepare for the macrocosm of life without, but which seeks to build up a world within; that schooling which educates man not for others, but for himself, and which teaches him to find happiness in himself and in his deeds. Religion is taught by church and pulpit, but the school cannot remain idle in the work of ethical education.

The school, it has been said, should educate for life. Man's life, however, glitters in double colors. He lives a life within and a life without. His eye sees the sun of the world, but deep in his heart rise the stars of his own fate. The struggle for existence which life brings with it, is not always a physical struggle; it may be a strife for spiritual treasures, for unsullied name and untarnished honor, for ethical existence.

The deepest soul of man must become the anchoring ground of the truth that man's higher nature must not be allowed to suffer in the struggle and in the race for gain. Higher than the treasures of the world he must learn to esteem justice and truth; higher than worldly gain the love of home and kindred, of neighbor and friend, and faith and fidelity to the State.

These teachings school and family must foster, and engrave them in the soul of the child so that they sink deep into the innermost nature of the man. The life of man is a struggle for better days towards which hope beckons with a smile. All hunt for treasures, which few only find.

Unmixed happiness is a rare guest in the house of man, but disappointment and care come like the days of the year. We cannot escape the sorrows of life, for we carry them with us.

> "Behind the rider sitteth dark-faced care,
> And with the sailor sails she through the waves."

If thus life mingles light and shadow, if happiness cannot be found in market and street, education must teach the child to find content and happiness where alone they will not flee:—in his own heart. A hand ready to help, a contented mind, an appreciation of those treasures that are higher than life itself, this is the ethical task which the century demands from the school.

After a recess, the Association was addressed by Senator Jos. E. Brown, as follows:—

Ladies and Gentlemen: I came into the hall with no expectation of addressing you, and did not expect to be introduced; but it gives me the opportunity of saying that as a citizen of Atlanta and of Georgia, I take pleasure in uniting with what has been said by the governor of our state, as well as our citizens whom you have heard, that you are welcome cordially to our State and city. Many of you come from the northern and western States. We are proud to see you here on that account. The time was when we had differences. That time has passed. We are now one people again, and one people we shall remain forever, The cause of our struggle has been forever removed, and there is now no question that will divide the people in the future. I am proud to know that this is so, and I shall do all I can to promote the interests of the whole country, and especially the cause of education.

We live in a remarkable age. I see a number of gentlemen here who were alive long before there was a railroad car on the globe. To-day we have ninety thousand miles of railroad, and the number is increasing fast, capital being infused every year. As far back as '49, when California was first annexed to this country and gold mines discovered, the miners from here started in large numbers to that place. I knew many of them. I received letters after they had left, saying: "I was three months reaching California." We have reached an age when a man can sweep across the country in seven or eight days. It has been a later period than '49 when we learned to talk by lightning, and it tamed and made to do our service so that now with the railroad system we have the telegraph, not extending from Washington to Baltimore, but reaching across this continent, spanning the ocean, and bringing us together as one people. We read to-day what occurred yesterday in China, and we expect to know on the following day the events that occur throughout Europe. Look at the great results from steam and electricity. Why a few years ago you gentlemen of the west burned corn. Why? Because you had rial in accordance with the foregoing, to the Honorable *The Senate and House of Representatives of the United States.*

J. P. WICKERSHAM favored a resolution less specific, although he favored the specific points in the first resolution.

A motion to postpone the subject until the consideration of the full report of the Committee on Resolutions was lost, and the first resolution was adopted unanimously.

H. I. KIMBALL, Director-General of the Cotton Exposition, spoke as follows:

MR. PRESIDENT, LADIES AND GENTLEMEN: This is certainly an unexpected honor—an honor that I feel quite unqualified to meet, and my only excuse for venturing to accept your invitation to address you to-day is upon the same ground that actuated an earnest Sunday-school Superintendent to keep up the organization of teachers' weekly meetings. At a recent State Sunday-school convention which I attended, the matter of weekly teachers' meetings was discussed, and one earnest advocate of the importance of such meetings related an incident of the only Superintendent, within his knowledge, who had for any length of time been successful in keeping up the weekly teachers' meetings. He informed the audience that the secret of this Superintendent's success was that he simply "went crazy" upon that subject, that he made it his constant hobby and only theme; that in the workshop, in the street, in the store, in social gatherings, in public meetings, and upon all occasions, the importance of teachers' weekly meetings was presented and discussed. I have discussed the subject of the cotton exposition before the merchants, the manufacturers, and the public business boards and exchanges of most of the principal cities in the north and west, but I never thought to have the honor of presenting the matter to a convention of public educators, and my presumption in occupying any portion of your valuable time may be accounted for by assuming that I have "gone crazy" on the subject of cotton exposition. When I read the accounts of your deliberations and realize the advance that is rapidly being made in the science and methods of education, and the opportunities that are presented to the youth of the present day as compared to the time (which is really not so very many years since) when I obtained my education by attending a little country school away up in the northern part of Maine, wading two miles through the deep snows of that section for from four to six weeks during the cold winter season, and only had that opportunity from the time I was six until I was twelve years of age, and am then asked to present any matter before a body composed of the highest educators of the land, I am afraid my venturing to do so will make it an established fact in your minds that I have really gone crazy.

The importance of education is being felt everywhere. It is beginning to permeate into the very darkest corners of this country. Manufacturers, merchants, farmers even, are beginning to understand the vast superiority of educated over uneducated labor. And the fact that this convention, that these leaders and promoters and pioneers in every branch of education are gathered here in Atlanta, in the capital city of Georgia, is evidence of itself that our people desire the lights that may be made to shine upon them here through the influences of this assemblage, and that nowhere is the fact more fully recognized and appreciated than here, that knowledge is power.

The very inception of the cotton exposition was for educational purposes—the bringing from the north and from all parts of the world and the assembling here of the inventive genius, the progressive educated mechanic, in order that our people might be educated and our crude modes and methods in handling the great staple of the world be improved. We confess that this subject, important as it is to our existence, has been most sadly neglected. Men engaged in it have discovered that the inventive genius of the world has been turned to the contrivance of machines and mechanism that would manipulate this great staple, and probably no industry has had the same amount of thought and care bestowed upon it and none has been productive of greater results than that bestowed upon the manufacture of cotton. And yet, go into the cotton field to-day and we find the same modes, the same processes, the same old-fashioned methods prevailing that we found forty years ago. It was this waste, this neglect, that first impressed us with the importance of holding in the south, in the cotton fields, in the midst of the great belt of cotton culture, this exposition. You may ask, "what has this to do with our convention?"

The answer is, that sixteen years ago four millions of ignorant, uneducated people in the south were enfranchised and made citizens, and I have been here all through the trials of reconstruction, and have witnessed the efforts made by that class of people to become educated people, and I am confident that they have made more rapid strides in education, made more progress, and attained grander results in that direction than have ever been accomplished in the same time by any other people in any locality in this or any other country.

The whole object of the cotton exposition is educational. There are thousands of cotton manufacturers all over the north and in the old world who have no idea of the staple except as they have seen it delivered at their various warehouses in the bale. There are thousands of our people who raise cotton that have no idea of the mechanism used in the manipulation, in producing the ten thousand fabrics that are made from it. We desire to present our great staple in its every stage of production and manufacture, from the seed to the finest fabric. We desire to bring together the men who plant and cultivate the seed and those who handle and manipulate the staple.

These are educators; the one educates the other, and each learns from the other, and both are the better qualified to carry out their respective duties and missions after having met.

Remember that in all these years the south has been travelling to and from the north, but that this is the first instance in the history of the country where we have inaugurated a great international enterprise and extended special invitations to the world to visit us. The time has been fixed and our cards of invitation to the great fete have been issued, and we have the assurance that our invitation is highly appreciated and will be most heartily accepted.

And what I say of cotton applies equally to all of the other industries, and not only that, but it applies to our social and our business lives and interests. The man coming from New England to Georgia learns how the people of the south live; he learns their habits, their methods, their characteristics, and he returns to his home a better citizen for having received that much education.

Realizing the great value of education in all the pursuits of life, the management of the exposition have provided a department especially devoted to the interests of education in the sense that that subject is discussed by this honorable convention.

Our people will come to the exposition to see the fine machinery and manufactures that will be presented here from Europe and the north. Northern people will come here more to see the south, to see just how we live, just what progress we have made, and there will be more desire manifested by them to learn of our schools, of our institutions, and of our social life than there will be to see the exhibits that are made at the expositions. I am confident that no branch of our industry or exhibits will so astonish the visitors as the exhibits that we can make in the educational department. And what I desire to impress upon this convention, and particularly desire the assistance of every one in this section interested in the subject to show at the exposition, is the advance that has been made throughout the south within the last fifteen years in the matter of education. Let every institution of learning be represented at the exposition. Let us have pictures of your buildings, interior and exterior. Let us have maps and charts drawn and executed by the pupils. Let us have full descriptions of your methods and your apparatus which will show clearly the progress that has been made, and not only that, but will show to our friends from the north just what means of education we have.

Here are gathered representatives from thirty or more States. As has been stated you have all come here without political or other prejudice. You have come here that you may learn of each other, and especially that you may present to this community and to this people the best means and methods of advancing education. And, therefore, I most confidently call upon every member of this convention, knowing the influence they can exert throughout the communities they represent, to present this matter of education, to present to their people, to the institutions they represent, the opportunities that are afforded by this great national exposition for the presentation of such an array of statistics and facts as will demonstrate to the foreigner, to the New-England man even, that he will find here means of educating his children that are hardly surpassed by any other section of the union.

Ladies and gentlemen of this convention, think of the great service that you may render to the whole country, and especially to the south, by giving this matter your most careful, earnest, thoughtful consideration, *by co-operating* with the management to the end that there may be presented at this exposition such a vast array of plans, modes, and methods for facilitating the education of the masses as will make it memorable throughout all time.

And in behalf of the exposition I promise the most hearty co-operation. There shall be no charge either for entry fees, for space, for transportation, or for care, but on the contrary the thanks of the management, and of the people, will go out most heartily to those who aid us in thus presenting this great educational cause.

It is not alone in the stimulation of industrial education, not alone in improved methods of labor and production, not alone in the increase of money profits upon the great staple of the country, that we expect, and hope to achieve the crowning glory of this exposition. We shall strive to make it, above all other events of this era of reunions and replightings, the altar-place for the intermarriage of all the interests, industrial, commercial, and patriotic, of the several great sections of our common country.

You, gentlemen and ladies, who are the educators of a new generation of American citizens, above all others, can appreciate the present value and the future hope to the country, which will result from the union of patriotic efforts in the school-room of the republic to bring to the front in the near future, men and women whose lives and labors are projected upon ideas foreign to the passions of the past, and energized by the possibilities that wait upon a free, fraternal, and progressive people. Urge the fathers and mothers of the union to bring hither their youth and under this roof dedicated to national progress in industry, arts, and sciences, in an atmosphere fervid with renewed enthusiasm and radiant with renewed hopes, inspire them with undying loyalty each to the other, and all to the glory of their country.

From your earnest co-operation in this enterprise you will mark this session of your convention with a white stone in the progress of educational science in this republic. All through this country there are, as shown upon your statistical maps, dense and unsightly forests of ignorance. Here are rich rewards awaiting the coming of the educational pioneer. Here the influences which each of you are to-day arousing in your school and lecture rooms, will one day exert gigantic power in labors of investigation, build enduring monuments to your renown and add a surer strength to the battlements of republican government.

May I not, then, confidently look to you for support and co-operation in this department of our great exposition? May I not now, upon the strength of your favor, promise the people a magnificent educational display resulting in vast benefits to the cause of public instruction and higher education in all parts of our country? Could I, or anyone else, present for your consideration to-day, the opportunity to do a grander and more patriotic labor than I have just suggested?

Thanking you most cordially on behalf of the exposition and myself for your courtesy and attention, I leave you to say whether you will not look just a little way ahead and prepare, through your facilities and by your hands, a department in this great national exposition that will be

A bare enumeration of the special questions in detail falling under the general subjects just named, would require the greater part of this report. We must limit ourselves to the consideration of such features as will enable us to understand its general spirit and judge properly its advocacy of new and old theories in education.

The occasion of this congress was the celebration of the fiftieth anniversary of the national independence of Belgium. The entire program of this celebration occupied several months, and included chiefly a great exposition of arts and industries and public institutions, similar to our international at Philadelphia, excepting that the Belgian exposition displayed only the products of its own nation.

In order to understand the spirit which animated this Educational Congress, it is necessary to consider the organization of school men known as the "Belgian League of Instruction;" for it is to them that we owe the conception as well as the execution of the plan for an International Congress of Education.

In December 1864 a society was formed among the "liberal" party which called itself "The League of Instruction," and defined its objects to be "The spreading and improving of education in Belgium" and "the bringing about of social progress by proper legislation." It instituted measures to compare the Belgian laws relating to education with those of Holland, of France, and of Austria, and published the results in a report. It further collected information regarding school-committees in the United States, Canada, England, Holland, and Würtemburg, and, by advice of the League, committees in accordance with the conclusions arrived at, were formed in the cities of Brussels and Antwerp. The league also started the plan of "school tours of inspection"—a school visiting some neighborhood famous for its history, or its institutions, or its industries, and studying it under the supervision of the school-master. It also gave special attention to the education of girls; it devised measures to improve the corps of teachers and to increase their salaries; it sought to build up libraries for the people, and has already taken part in the founding of nearly one hundred libraries; it issues lists of suitable books for purchase, and publishes the statistics of existing libraries; it seeks to encourage intellectual activity by courses of lectures; in 1877 the league established at Brussels a model school, designing in it "to continue the same method and the application" of what it calls the "intuitive exercises" (*i. e.*, cultivation of observation by sense-perception) invented by FROEBEL; it carries out the principle of the Kindergarten into higher education. While FROEBEL uses plays and games and employs gifts and occupations, the Brussels Model School uses the elements of the natural sciences for this education. It tries to use objects somewhat as our Oswego object-lesson system does, or as Mr. CALKINS's manual directs. It lays great stress on the natural sciences accordingly, and seems to place somewhat in the background the human sciences and the studies of literature, the fine arts, history, philology, philosophy, and logic.

For the support of its model school and to defray its own expenses the *League of* Instruction collects what it calls "the school penny";—and in

1877 its income was $20,000 from this source. Its numerous members subscribed annually a sum not less than twenty cents each, and this, with the "school pence," gives the league a large income for its enterprises. ("School pence" an intended reminder of "Peter's pence.") Mr. CHARLES BULS, the sheriff of public instruction of the city of Brussels, is the Secretary of the league, a very able man, and the chief worker and planner in this International Congress of Education.

On occasion of the semi-centennial celebration of Belgian independence this League of Instruction availed itself of the opportunity to aid its cause by organizing this International Congress of Educators, and it secured the approval of the government, so far as to obtain the use of the name of the Minister of Education, VAN HUMBEECK, as honorary president of the congress.

The most important thing in the organization of the congress—and the thing that showed the utmost practical wisdom on the part of its originators, was the complete elaboration of the program of work, its division into sections, and the selection of distinguished specialists among the educators of different countries around Belgium to write essays or treatises on the several themes for discussion, and send them in to the executive committee so that they could be printed before the meeting of the congress and distributed to its members on arrival, and serve as a basis for the discussions. The volume in which were printed all of the discussions received up to the last moment before printing, contained 975 royal octavo pages, of which 304 were devoted to essays on the topics of the first section, or Primary Education; 98 to High School or Secondary Instruction; 93 to University Education; 111 pages to Special, Professional, and Industrial Schools; 111 to the Education of adults; and 215 pages to School Hygiene or the construction of proper buildings and the care of the health of pupils.

The general committee, formed of prominent educators from various countries, early in 1880, numbered 414, who accepted the invitation to serve on the committee. Of these 45 were from Germany; 37 from Great Britain; 21 from Austria; 6 from Brazil; 2 from Chili; 7 from Denmark; 18 from Spain; 3 from the United States; 36 from France; 21 from Italy; 30 from Holland; 11 from Portugal; 2 from Russia; 7 from Sweden and Norway; 14 from Switzerland; and 154 from Belgium.

Of the 282 foreign members present who had joined the congress on the first day, there were 30 from Germany; 34 from England; 17 from Austria; 5 from Denmark; 21 from Spain; 1 from the United States; 141 from France; 8 from Italy; 6 from Portugal; 6 from Russia; 4 from Sweden and Norway; 9 from Switzerland. Large delegations came in later in the week, and there were many hundreds from Belgium. It is stated that there were nearly 2000 members, all told, before the close of the sessions. I venture the assertion that no one ever saw in America or in England, such animation and oratorical display in a convention of educators. In the primary section there were a large number of women of distinguished ability who spoke with great eloquence—and used sharp words sometimes.

There were numerous invitations to the members of the congress to attend this and that institution—the model school of Brussels, the university, the libraries, the pedagogic museum, and various other attractions. On Tuesday there was a great fête at Antwerp, to which the members of the congress were conveyed by special train, feasted on board a special steamer, entertained with fire works; carried back to Brussels at midnight, all free of expense, on their part. On Wednesday a great reception at the *Hotel de Ville*, decorated and illuminated for the occasion —songs from choirs of school children—(free champagne to drink,) etc. On Thursday there was a *fête de cercle*—an artistic and literary gathering in an enormous building whose walls were covered with pictures illustrating the history of Belgium. The King and Queen came in late in the evening with their retinue.

The sessions of the sections of the congress were held in the morning. The afternoon was devoted to general meeting of the whole congress, in which the special topic of most general interest was selected from the program of the sections, and debated.

The congress held its opening session on Sunday. M. COUVREUR, the acting President—(M. VAN HUMBEECK, the minister of public instruction of Belgium, was the "Honorary President,") gave an account, in his opening speech, of the way in which the educational congress at Brussels came to be summoned, and of its aims. He referred it to the Ligue De L' Enseignement as the chief mover.

In speaking of its aims he said that the congress was bound by no special creeds, and that it had no hobbies to advocate. Its object was to elicit the truth and to discover the weak points of old systems that have failed of their end; to examine what new systems are proposed to supplant the old, and to find the successful ones; to arrive at the best means for educating all classes of people in the light of the present. The zeal which the public opinion of the civilized world manifests for the cause of the moral and intellectual development of humanity was the surety for great future progress on the part of humanity. It will be the distinguishing honor of this age that it has sought to provide instruction and education of all grades and for all ages and for all conditions of people. The progress of democracy seemed to be the moving cause of this advance in education. He answered the complaints put forward by the clergy that schools established on a secular basis invade the domain which belongs of right to the church, by asserting that moral education which the church mostly sought was favored by the inculcation of knowledge. He referred to the great material prosperity of Belgium, and claimed that the spread of education among the people would increase it still more. "It is absurd for a nation to boast of its natural riches—of its forests and mines and its harbors on the sea,—and then to neglect the development of its people whose labor it is that has created the wealth of which it boasts. To cultivate the material resources of the land and to neglect the cultivation of the people for whom the material resources exist, is, however, the folly that has actually been committed in the past."

Immediately after the adjournment of the Congress, the executive committee published a general report summing up briefly the results of the meeting. I will quote from this report such portions as give the results of the congress from the point of view of the managers of the League of Instruction.

Section I.—Primary Instruction. "The different questions placed on the program of the first section have given rise to pertinent and animated debate, in which the speakers have generally taken very elevated views. In division B the discussions have related chiefly to the first question proposed—that of FROEBEL's method; eminent specialists, both from home and from abroad, have stated what has been done towards spreading FROEBEL's doctrines, and the different ways in which the system of the illustrious German pedagogue has been understood and applied."

"This earliest infant education has aroused so much interest, even outside the sittings of the section that its members have collected in groups to seek further explanations on what has been said at the meetings. The subject has come up constantly when other points have been under discussion. The school of FROEBEL tends in fact to become the basis of all education; the school properly so-called will have to avail itself of Kindergarten methods."

"While division B was studying the practical methods of instruction, division A was discussing the general organization of popular instruction, and the great problems which concern the freedom of teaching (without license from government), the creation of school museums, the professional training of teachers, the education of girls, free public instruction, and the proper remuneration of the teacher. All these questions which touch some of the gravest social issues, gave rise to searching debates, in the course of which the speakers adduced profound theories, supported by well-established facts drawn from the history of institutions already in operation in the different countries of Europe and America, whose representatives addressed the meeting."

"The result of the discussions showed agreement in regard to the scholastic organizations and the methods employed, the differences of opinion being mostly on matters of practise. The purpose everywhere is the same."

Section II.—Secondary Instruction. "The principal question on the program of this section related to the organization of schools giving secondary instruction. Should such schools furnish general instruction, or only special instruction with a view to the future career of the pupils? Both sides of this question found defenders. The difficulty of formulating any program of studies that would satisfy modern requirements was brought forward as an argument in favor of special schools; on the other hand, the impossibility of determining for pupils at ten years of age their aptitudes was urged by the opposite party; a few individuals tried to satisfy both parties by maintaining that instruction might be given which should be at once special and general."

"The debate increased in intensity, and excited a lively interest on the part of the audience, when the partisans of classical studies took the floor against the partisans of science and modern languages, Each side defended its thesis with a degree of ability and breadth of view which proved that the defenders of Latin and Greek were also familiar with science, and that the advocates of modern languages and of exact science were likewise men thoroughly acquainted with "the humanities." All agreed on one point—the necessity of the moral influence of the school and the teacher upon the pupils."

"Most of the speakers pronounced themselves in favor of attaching preparatory schools to secondary schools."

"The simultaneous use of grammatical study and of practical exercises in teaching modern languages, was preferred by almost all the speakers. Many criticised the grammatical method in general use now; some claiming that the study of language should be founded on the principles of the evolution of languages; while others contended that the procedure should be from the simple to the compound, and that the affinities of the languages should be pointed out."

"The best system for educating teachers for secondary instruction is, according to some, to place the candidates in a special school, similar to the *école normale supérieure* in Paris; according to others, it is best to have them enter a university, in which they will go through a course of general study."

"Finally, the second section devoted a morning to the question of the best method of education and the best course of study in secondary schools for girls. This led to a brilliant and profitable discussion. It gave to several women, well known to all concerned in educational questions, the opportunity of proving to what extent they are worthy of their reputation. It was by common consent recognized that secondary schools for girls are absolutely indispensable, and that their establishment is a duty of the State. The only difference of opinion concerned the management of such schools, and although the majority seemed to favor women for directorship, the opposite view was maintained with ability, and found partisans.

Section III.—Higher Education. "This section examined and discussed successively all the questions that had been prepared for it by the executive committee except the 9th and 10th (concerning the union of practice with theory in universities, etc.), and, moreover, a proposition was brought before it relating to the establishment of institutions for higher instruction in commercial matters."

"Freedom of higher teaching, freedom in laying down courses of study, also the freedom of teachers as regards new opinions in opposition with the religious ideas of their people, were discussed from various points of view. The tests of the work of the pupil, questions and answers, etc., were passed in review. The necessity of an entrance examination for universities was unanimously accorded, but no one advocated fixing a standard of age as well as of scholarship."

"The question of granting academic degrees was the subject of a searching debate, as was also that of the propriety of admitting women to university studies and examinations."

"Finally, the general assembly of the congress devoted a long session to the examination of the means of adding to preparatory studies for all liberal professions, a knowledge of the essential principles of all the sciences. This question could not be exhaustively treated without a *supplementary* session of the section."

Section IV.—Special and Industrial Schools and Classes. "The result of the discussion in the fourth section, was that the organization of industrial schools should depend on the nature of the prevailing industry in that part of the country to which the school belongs. The alleged diminution of skill on the part of workmen seemed to the section more apparent than real. The apprehension on this subject arises from the changes which have taken place in the relation formerly existing between production and skilled labor. Production has made rapid strides, while the means of apprenticeship have lessened rather than increased."

"The tendency, at present, is to introduce workshops into elementary schools, to organize a real apprenticeship, and to establish industrial schools through the help of trade organizations."

"The section next considered the best methods to be adopted for teaching gymnastics. The section agreed on the opinion that any apparatus is good so long as the purpose with which it is used is to give harmonious development to the body."

"The section agreed that great progress had been made in the teaching of the deaf and dumb, in the sense that it is no longer content with enabling them to correspond by signs."

"In the general assembly the learned report on instruction in drawing was discussed, but it cannot be said to have resulted in any conclusions concerning the organization of such teaching. Some speakers attributed this difficulty to the confusion which seemed to exist in some minds between plastic and geometrical drawing."

Section V.—Instruction for Adults. "The organization of adult schools was the subject of a very interesting debate. It was explained by various speeches what was done in different countries of Europe and America. All are agreed that a distinction should be made between the adults who are entirely illiterate, and those who have some small acquirements of knowledge; and likewise in regard to the great difference between classes in the country and those in large cities where the exigencies of trade and various forms of industry might make a different program of studies desirable. Some speakers insisted on the necessity of giving prizes to the students at the end of the year."

"The question of the organization of workmen's societies was thoroughly investigated. The conclusions given in the published report were for the most part adopted by the assembly. But there was a division of opinion in regard to the remuneration of the teachers who devote themselves to extending and maintaining these useful associations."

"Various means were pointed out through which the bureau of public charities and generally the official bodies that administer funds for the poor might contribute to the progress of instruction, and the moral improvement of the people. But after all, such means are only of temporary value."

"Courses of public lectures, popular publications, and libraries were examined in a very thorough manner; various speakers recounted what had been attempted in this direction in Belgium, in France, Austria, and in the United States, etc. School savings-banks were unanimously approved."

"In the general assembly an animated debate arose on the reciprocal services that might be rendered by schools to the army and by the army to general instruction. Most of the speakers believed that some instruction in military tactics should be introduced into schools so as to prepare boys for the military service, and instil the spirit of order and discipline so indispensable in the army."

"It was held that bodily exercise should be provided for in all schools."

"The proposition that a certificate of completion of the primary course of study should be given to proficient adults, even when they have not visited school, met with general support. It has been eloquently defended by some speakers as partially supplying the place of obligatory instruction."

"Most interesting details were brought forward relating to artisan journeys; and a complete account of what has been done in this way in European countries was given.

The entire assembly was in accord on the subject of encouragement to be given to the introduction of instruction into co-operative societies, mutual benefit societies, societies for recreation, and an exhaustive discussion on the subject made manifest how indispensable they are."

Section VI.—Hygiene in Schools. "Fifteen specialists of different countries, Belgium, France, Great Britain, Hungary, Holland, Russia, and Switzerland sent in preliminary reports on the six questions proposed, and these are very complete and bear the traces of very thorough study. Seven reports and six supplementary were sent in by scientific men of different nationalities, and were read in full or analyzed by one of the secretaries of the section. Twenty-three volumes and pamphlets on hygiene were sent to this section. The assembly devoted much time to the principal hygienic conditions to be observed in the construction of school buildings.

"1st. The lighting of day class-rooms (the subject of three reports,) was considered at length, and the following resolution adopted: 'Class-rooms should be lighted during the day by windows, on one side only, and to the left of the pupils, and so arranged that all the seats should be fully and equally lighted, the question of ventilation being considered apart from that of lighting.'"

"2d. The question of the proper cubic contents of air was settled by the following resolutions: 'The length of a class-room—the maximum number should be 9.60 metres; the width, 6.60 metres to 8 metres—(or thirty-one by twenty-one to twenty-six feet).'"

"3d. The hygienic conditions of play-grounds, gymnasiums, privies, lavatories, etc., as well as the difficult and important question of summer ventilation and of ventilation combined with heating in winter, which had been made the subject of four different reports, were discussed, and it is hoped that the very important practical conclusions which received the approval of the entire assembly, will bear their proper fruit."

"The section discussed the details of school fittings and arrangements, and was unanimous in deciding in favor of single desks, such as are already in use in many schools on the continent."

"*For the* lighting of the evening classes, an ingenious apparatus was proposed for approval, which combines with the lighting some arrangements for facilitating ventilation."

"After discussing the question of the construction and fittings of the Kindergarten, and adopting the recommendations of the two reports presented, the section entered into the considation of medical attendance in schools, and adopted a resolution in favor of extending medical inspection to the schools and the establishment of a bureau for matters connected with the hygiene of schools, attached to the office of the minister of public instruction and presided over by an inspector general."

"With a view to set on foot statistical researches to ascertain the influence of schools on the physical development of children," the section resolved:

"1st. That the Belgian Government should take the initiative in establishing throughout the kingdom—after the example set by Brussels—hygienic statistics in schools, that shall show the influence of schools on the health of children.

"2d. That the recent establishment of medical commissions in Belgium, and especially the addition of a bureau of correspondence to those commissions, should become so many centres of methodical research into the hygienic statistics of schools.

"3d. That this section recommends the permanent establishment of interchange of documents and of other information relating to school hygiene, between different countries."

"In the last sitting, August 28th, the section considered the practical measures to be prescribed in Kindergartens and in primary schools, with regard, 1st, to medical preventives against injury to healthy, bodily development; 2d, to proper food for children."

I have quoted largely from this most excellent summary drawn up by the managers of the congress because it gives in the briefest form the history of the proceedings, and the net results of the deliberations.

It was to be expected from the League of Instruction, organized by the liberals, that they would favor the scientific direction of instruction rather than the literary and classical direction; that they would favor industrial education; the kindergarten; the liberty of the teacher in instruction; object-lessons instead of text-books. The prevailing tone of the debates did favor these things. There was very much said against memorizing, and in favor of cultivating sense-perception—as is usual in teachers' conventions in America. But there was a very strong defence made of the classical languages as studies in higher education.

It would seem that Belgium is now doing more for the education of adults than any other country in the world. While in the regular schools higher and lower there were 750,000 pupils, there were as many as 204,673 persons in the schools for adults. With this showing there is no reason to doubt that there will be a rapid diminution of illiteracy, and after the present generation of illiterates dies out that there will be no more to take their places. According to the best statistics accessible I find that the pauper class is very large in parts of Belgium, also the illiterate class. In East Flanders, where the population is 760 to the square mile—being the densest population in Christendom—one in sixteen is a pauper;

while in West Flanders one in eight is a pauper. The struggle of the liberals in behalf of popular education has reduced the number of illiterates so that in 1879 there were 23 in 100 conscripts for the army who could not read and write, while in 1843 there had been 51 illiterates to the 100 conscripts; in 1845, 40 in 100; in 1863, 30 in 100; in 1874, 25 in 100. It is this large illiterate population which the extensive provision for the education of adults is calculated to affect. Other countries can study with profit the Belgian system of educating adults.

The League of Instruction has decided to hold International Educational Congresses once in three years, alternating with Switzerland in receiving the congress.

If we could draw a large number of delegates to our shores it would be a matter of great profit to our own educational system to hold an international congress of educators. At our next International Exposition, to be held in Boston in 1885, such a congress will be attempted, and it is hoped with complete success.

The Secretary read the following letter:

CLARK UNIVERSITY,
R. E. BISBEE, President.
ATLANTA, GA., July 22, 1881.

The Board of Trustees of Clark University, most cordially invite the members of the educational convention, sitting now in Atlanta, to visit the school buildings and grounds situated at the head of McDonough Street.

W. H. CROGMAN,
Secretary.

The University carriage will leave the book store, 110 Whitehall Street, at 2 P. M., and will furnish free rides for ten delegates.

WESTERN & ATLANTIC RAILROAD COMPANY,
Office of the General Passenger Agent.
ATLANTA, GA., July 22, 1881.

Secretary National Educational Convention,

DEAR SIR:—Will you do me the kindness to announce to the Convention that excursion tickets will be sold to Chattanooga tomorrow, to delegates, their families, or friends, at three dollars.

Trains leave at 5:10 A. M., 8:05 A. M., or 2:50 P. M.

Tickets good to return on Sunday or Monday.

This is a rare opportunity to visit Lookout Mountain.

Respectfully,
B. W. WRENN,
General Passenger Agent.

The Rev. Mr. MITCHELL, of Atlanta, made some remarks in favor of the introduction of the Bible and formal prayer into the schools whenever possible. He was followed by J. C. GILCHRIST, of Iowa, and the *Hon. J. D.* PICKETT, of Kentucky.

The Hon. J. D. PICKETT then reported the following resolutions from the committee appointed to give expression to the feelings of the Association in reference to the assassination of JAMES ABRAM GARFIELD, President of the United States.

National Educational Association,
ATLANTA, GEORGIA,
July 21st, 1881.

WHEREAS, JAMES A. GARFIELD, President of the United States, was maliciously assaulted and severely wounded on the 2d of July, instant, and

WHEREAS, we recognize in the said JAMES A. GARFIELD, not only the Official Head of the General Government, but the accomplished scholar, the Christian gentleman, and the faithful and efficient advocate of Popular Education, be it, therefore,

Resolved, That we, the members of this Association hereby, formally express our profound sense of the grievious calamity that has fallen upon our Land in the suddenly and sorely-stricken person of JAMES A. GARFIELD, President of the United States, but hail, with great gratification, the news of his improved and hopeful condition.

Resolved, That in the interest of our Union and in the true advancement of Christian civilization, we shall continue to implore the Great Disposer of human events to preserve and prolong the life of JAMES A. GARFIELD, President of the United States.

Resolved, That we, hereby, express our sincere sympathy with Mrs. JAMES A. GARFIELD in her great affliction, and our pride and pleasure in publicly recognizing in her the heroic Christian wife and the accomplished Christian lady.

Resolved, That, this Preamble and these Resolutions be duly entered on the minutes of this Association for permanent record, and that a copy thereof, be duly forwarded to President GARFIELD through the Hon. JAMES G. BLAINE, Secretary of State for the United States.

The resolutions were adopted unanimously by a rising vote, and were subsequently forwarded to the Hon. JAMES G. BLAINE, Secretary of State, signed by the committee, JOSEPH DESHA PICKETT, of Kentucky, JOHN EATON, of District of Columbia, JAMES P. WICKERSHAM, of Pennsylvania, HUGH S. THOMPSON, of South Carolina, and GUSTAVUS J. ORR, of Georgia, attended by the President and Secretary of the Association, JAMES A. SMART and WILLIAM D. HENKLE.

T: W. BICKNELL, in behalf of the Committee on Resolutions, consisting of himself, W: T. HARRIS, W: A. MOWRY, W: O. ROGERS, EDGAR A. SINGER, W: B. BONNELL, and A. MEANS, offered the following resolutions:

That our hearty thanks are cordially tendered to his excellency, the governor of Georgia, and to Hon. J. E. BROWN, U. S. Senator of Georgia, for their generous words of welcome, expressive of their sympathy with the cause of common school education and with the objects of this Association.

That our sincere thanks are specially due to Dr. G. J. ORR, and to the several members of the Reception Committees co-operating with him for their successful efforts to secure comfortable accommodations for members of this convention, and to provide for their convenience and their pleasure; to Mr. DANFORTH, the manager of transportation, for facilities for travel; and, also, to the citizens of Atlanta for their warm hospitality and their many particular and general favors shown to this Association and its members.

That we fully appreciate the honor tendered by the State Senate to this Association through the kind invitation to its members to visit the Senate Chamber during the sessions of that body.

That we thank the hotels, the old Dominion Steam-ship Line, and all other companies that have favored the members of this convention by a reduction of their regular fares.

That we return our thanks to Mr. W. J. HOUSTON, of the Atlanta & Charlotte Railroad, and to Mr. B. W. WRENN, of the Western Atlantic, for their kindness and liberality in arranging excursions on most moderate terms to Tallula Falls and to Lookout Mountain.

That our hearty thanks are due, and they are hereby cordially tendered to our retiring president, JAMES H. SMART, for the energy, impartiality, and courtesy that have marked his conduct as presiding officer of this Association; to the officers of the several departments; and to the members, who, at great expense of time, and with equal care and ability, have prepared the excellent papers presented at this convention for the consideration of the friends of elementary and higher education everywhere throughout this great intelligent nation.

That it is eminently proper for this body to place upon record its firm settled conviction of the value and the necessity of universal education.

That the education of the children of all classes of the people in every State, is essential and vital to the prosperity and the perpetuity of our republican institutions; and that it is the province and the duty of each State to provide a full and thorough course of elementary instruction, at least, in free public schools, for every child within its borders.

That in every complete system of education by the State, the normal school for training teachers should constitute an integral part; and we congratulate ourselves that in so many States such schools have been already firmly established, earnestly urging upon all others the necessity and the great importance of providing these institutions at the very earliest practicable day.

Resolved, That this Association has witnessed, with great satisfaction, the establishment and growth of free-school systems in the southern States, and the success which has followed the work is an evidence of the earnest purpose of the workers, and the wisdom of their methods. The present meeting has afforded the members abundant opportunities to note the zeal and enthusiasm of southern educators, and it is the pleasure of the Association to congratulate the people of the South on what *has been already* done in securing the growth of free-school systems, and to express the hope that the day is fast coming when every child shall receive a good common-school education.

That the members of the National Educational Association, at its session at Atlanta, desires to express their hearty approval of the prospects of an International Exposition at Boston, in 1885, believing that such an exposition will be an evidence, not only of the world's material progress, but also of the educational status of the people influencing this physical prosperity.

The Association urges the establishment of a Department of Education within this exposition, and pledges its cordial support to such measures as may lead to a fair exhibition of the condition of education in this and other countries. To this end we recommend the appointment of a committee to report at its next annual session such plans and measures as may seem necessary to co-operate with committees to be appointed by the general management of the exposition at Boston.

Resolved, That we recognize, with high appreciation, the great amount of good that has already resulted from the National Bureau of Education in the dissemination of valuable educational statistics and papers, and that we pledge the Bureau our united and cordial co-operation in making its statistics and general work as valuable as possible; and we hereby express our earnest desire that Congress should grant to this Bureau all the assistance and means that are required for the most efficient prosecution of its work.

EDUCATIONAL PERIODICALS.

Resolved, That the educational literature of a country is one of the most valuable agencies for the quickening of educational thought and the elevation of public opinion, and that it is very desirable that all who claim to have a part in the work of education should possess and read, not only the standard works on pedagogics, published in our own and other countries, but that they should also read and discuss the fresh utterances of the press as found in educational papers and periodicals, which are now issued in weekly, monthly, and bi-monthly editions.

The President appointed as the Committee referred to in the International-Exposition Resolution, JOHN D. PHILBRICK, of Massachusetts, JOHN EATON, of the District of Columbia, JAMES P. WICKERSHAM, of Pennsylvania, HUGH S. THOMPSON, of South Carolina, ANDREW J. RICKOFF, of Ohio, and THOMAS W. BICKNELL, of Massachusetts.

The Association added the President, JAMES H. SMART, of Indiana.

T. W. BICKNELL spoke of the action of the Georgia Teachers' Association in reference to a memorial volume of the late BERNARD MALLON.

The Hon. G. J. ORR, the President elect, was introduced and made a few remarks thanking the Association for the high honor conferred upon him.

Adjourned.

The following letter directed to the President of the Association but not read before the Association, may be fitly inserted here.

DEPARTMENT OF HIGHER INSTRUCTION.

WEDNESDAY, JULY 20, 1881.

The Department of Higher Education met at 3 o'clock. President **Lemuel Moss**, of Indiana, called the body to order, and delivered the opening address as follows:—

All questions of human interest are, in their last analysis, questions of philosophy. Mathematics, pure and applied, including the entire catalogue of the physical sciences, root themselves in the trustworthiness of our human faculties, and so have no ultimate guarantee but metaphysics. The sciences of expression, with all their ramifications in philology and rhetoric, and all their efflorescence in literature, music and the finest of the fine arts, have no significance but as manifestations of thought, and thought has no standard and test but in the primary laws of logic.

The sciences of history, in all their living and practical forms of sociology, political economy, statesmanship, legislation and national politics, are but so many developments of the first principles of human ethics, and hence are baseless and meaningless without the original moral and metaphysical truths of immortality, essential freedom of will and the being of God. Religion, the highest and most sublime of all human interests, assumes between man and God a kinship and community that are vital, inherent and permanent, and not arbitrary, transient, conventional, dissolvable, and hence can vindicate itself only by vindicating the universal and eternal veracity of human nature and of human spiritual relations. Reason is the source, the assurance and the criterion of truth; not human reason, but that original eternal and infinite reason, of which human reason is the authentic product, type and manifestation, as it is also its recipient and interpreter.

Nothing is more striking in the history of humanity than the wide reaching influence of any epoch-making system of philosophy. To write completely the story of Aristotle, Aquinas, Descartes, Locke, Kant, one must write the entire story of their epochs,—of the literature, art, science, politics, religion, of the eras to which they have given their names. The history in detail of any period is the development of the philosophical ideas which dwell and work at its heart. So the solution of the puzzles and paradoxes which are thrust upon you in the heated controversies of to-day, must come from the rational or seemingly rational conceptions which serve as their germs and life. Tell me your assumptions of thought and I will read your riddle of the universe, and give the interpretation. What is your credo? Do you believe in God? personal or impersonal? immanent in the world or independent? Do you believe in man? mortal or immortal? free and with a career of freedom? or a dead link in a dead machine? Do you believe in the world? cosmos or chaos? the temple of an Almighty Father for the training of a free-born son, or the dominion of chance and mechanical necessity and the charnel house of doomed illusions and baseless hopes? Atheism? Agnosticism? Pantheism? Belief in God? We must begin with assumptions, and these assumptions are our philosophy in embryo and essence, and the differences in them will make the differences in the direction and goal of our thinking. We must begin with assumptions, but only assumptions that are permanently and immutably true, can be vindicated by thought or verified by results. So we repeat that with which we began: All questions of human interest are at bottom, questions of philosophy.

I thus state my theme and hint its outline. I cannot now discuss it. The practical purpose for which I have ventured my hint and suggestion, is this: No competent and honest teacher in this nation to-day can be otherwise than serious and anxious concerning the philosophical conceptions which are to dominate and direct the thought and life of our people. At no point is the contact between society and our schools for higher instruction so vital and effective as here. This is the great function and primary obligation of our colleges and universities, to hold and teach a true philosophy, the true conception of the world and man and God. In our maturing consciousness as a nation; in our heritage of the problems and dangers and possibilities of other centuries and other countries; in our peculiar and special difficulties and duties as a people; we must look to these sentries along the outmost front of our civilization, to warn us of enemies to be met and to call the watchword of advance. Higher education means the training of thinkers and of teachers of thought, who can lead us in all departments of life, from principles which are trustworthy and immutable to conclusions which are fruitful and permanent.

President I. W. Andrews, of Marietta College, Ohio, then read the following paper on

THE STUDY OF POLITICAL SCIENCE IN COLLEGES.

The expression, Political Science, may include Political Economy and International Law, as well as the Science of Civil Government, but in this paper I shall confine myself to the last of these. It is of the nature and origin of government, with its history and workings in our own country, that I propose to speak. We all sustain various relations to our fellow men. We buy and sell, we render services to others as we may agree, and we employ others to render service to us. We select our own lawyer, physician and clergyman. In all these relations and many others our action is voluntary. We are free to do as we please. But there are other relations in which our action is not voluntary. We are compelled to do certain things whether we will or no. Government is coercive. It commands and we must all obey. Some of us are here in this city of

Atlanta, this commonwealth of Georgia, for the first time. We select our hotel, we do a thousand things, as we please; but there are some things we may not do with impunity. We must not disobey the laws of this State, the ordinances of this city. It would be the same if you should come to Ohio. We are all the while under law—the law of the city or town, that of the State, that of the Nation. If we go to foreign lands it is still the same. Law is everywhere. Is this power to coerce, legitimate? Has one man, or a few men, the rightful authority to make laws affecting our conduct, and to punish us if we disobey? If men did not acknowledge this authority to be rightful, it certainly would not be exercised. The fact that civil government exists everywhere is the proof that men believe in it. Directly, government is from the people. It is the carrying out of their will. They authorize the few to make laws for the whole. Remotely, the power is from God. He has so constituted men that society and government are a necessity, and that they believe in the necessity. Government is spontaneous, and not the result of any formal agreement or compact. Men have not agreed to give up certain rights for the better security of others. Government is clothed with power which the individual man never possessed, and it never asks the subject whether he has voluntarily parted with any given right.

Any community of persons independent of all others constitutes a civil society, and they proceed to establish government. Its form may be what they please. The people, with whom the sovereignty resides, are the sole judges of that. They make constitutions for the guidance of those who for the time being carry on the government. The Nation is always greater than the rulers whom it appoints, as the constitution is higher than the laws.

The rulers may be corrupt, but the Nation, the State, is greater than the rulers. The true sovereignty is in the people as a great organic community. Before the people as a whole we are filled with reverence. It is the majesty of the Nation that impresses us. This feeling, which has been implanted in man by the Creator, accounts for the respect, and deference, and homage even, which royal personages receive from their subjects. It is not for their own sakes that men thus bow before them, but they represent the power of the nation; they are the embodied majesty of the people. In rendering this deference men are not always conscious of its true origin, but its universality attests the divinity of its source. In a republic, the will of the people, expressed according to the constitutional forms which the people themselves have established, is the final decision. That will is to be taken as right. In a constitutional monarchy—the form of government which stands next to a republic in all the elements of freedom—we find the maxim, "the king can do no wrong." It is the counterpart of the republican doctrine that the will of the people is right. In the monarchy the king, the queen, personates the sovereignty. Victoria comes to the people as the sovereign. The chief coin of the realm has her image upon it, and is called the *sovereign*. The army and navy are called Her Majesty's Army and Navy. It is her Majesty's laws that are violated, her Majesty's peace that is broken. But with us there is no such fiction of transfer of sovereignty from the people to the ruler. The sovereignty is nominally as well as actually in the people. The President is the great Executive head, but the laws are not in his name. He is the commander-in-chief of the army and navy, but they are the army and navy of the United States and not of the President. He may have more power, perhaps, than the Queen of England, but he is not, as she is, the personified sovereignty.

Here then we have both a coincidence and a contrast. The feeling of respect for authority is the same in both Englishmen and Americans; it belongs to all men. God has implanted it in the human heart to give stability to society, and without it there would be perpetual anarchy. When a people has been rent and torn with dissensions and the foundations have been broken up, a ruler appears like Napoleon. The man on horseback presents himself, as men say, and all submit to him. Why do they submit? Because he is a strong man, because he is on horseback? Not at all. It is because this feeling of submission to authority has been implanted in man; the conviction that a ruler is a necessity. This feeling may be perverted. In a monarchical government the reflecting men never forget that the monarch is but the representative of authority; the Nation is the real sovereign all the while. But the unreflecting may not see beyond the visible embodiment of the sovereignty. To them Queen Victoria seems the real sovereign. In a republic the thoughtful recognize the majesty of the Nation, the sovereignty of the whole people; but the unthinking seeing no visible tokens of sovereignty, no sceptre, no crown, none of the insignia of royalty, become partly oblivious of the authority, and speak evil of the ruler. The less intelligent men are, the more need of external splendor to attract them. Hence the need of general intelligence among the citizens of a republic that the laws and the constitution may always be respected, though there be no crown and no king.

This principle of respect for the majesty of the people, this love of country and zeal for her honor, though sometimes perverted in a monarchy, and sometimes smothered in a republic, lives in men, and in various forms manifests itself. When Commodore Wilkes stopped the English Mail Steamer and took from it Messrs. Mason and Slidell, it was felt by all England as an insult to her national honor. The very act which made Commodore Wilkes the hero of the hour in America, and for which the House of Representatives voted him a gold medal, caused the British Cabinet instantly to order troops to Canada, and would have brought on a war between the two nations had not our government at once disavowed the act. In this was seen the patriotic feeling of the two countries. Ours was not well founded, and that of England was greatly exaggerated; but the feeling itself has a true basis. The coolness and honesty of Abraham Lincoln, and the wisdom of Secretary Seward saved the country from the untold calamities of a war with Great Britain.

Such being the nature and origin of civil government, the necessity of an intelligent knowledge of it on the part of all the people is most manifest. None can afford to be ignorant of that which affects so vitally all their dearest interests. Especially is this knowledge essential to those who may be expected to aid in the formation of public opinion, and may themselves be called to fill important positions of trust and influence. That Political Science has been too much neglected as a branch of study is true. Recently attention has been directed to it, and a large number of institutions are giving it a place in their courses of study. In two or three cases it has been proposed to make a post-graduate course in this department, devoting to it the whole time of the student for two or three years. But this by no means should be allowed to prevent under-graduate study in this direction. The number who will pursue this advanced course will be small, while every one who has received a liberal education should have some foundation in political knowledge.

Among the reasons for attending to this in college are these:

(*a.*) Because those who have made a good beginning in the educational period will be likely to prosecute the work in subsequent years. So various are the departments of knowledge, we can hardly expect a young man to be attracted to that to which he has had no introduction while prosecuting his studies, But if he has already made a beginning, if he has had even a bird's eye view of a subject, in itself so important and so interesting, the political incidents continually occurring will engage his attention and stimulate him to new acquisitions.

(*b.*) Another reason for the study of Political Science in college is that thereby is laid a real foundation on which to build. Knowledge in this department is not, indeed, like mathematical or chemical knowledge where the student must begin at the beginning, but even this to be of any service must be obtained systematically. All our political speeches, and a large part of the newspaper articles assume a certain degree of knowledge on the part of the hearer or reader. Without this previous knowledge much that is heard and read is not fully comprehended. This would be true if the speakers and writers were themselves fully masters of their subject. But in too many cases they speak and write of that of which their own knowledge is quite superficial. We may safely say that to a large extent the people are but little the wiser for the political matter which they hear and read. But with a definite knowledge of the leading features of our system, and of the more important facts of our political history, there would be constant accumulations of knowledge, and a fair understanding of current political events.

(*c*). A still more important reason may be found in the non-partisan character of the instruction received. The great part of political information comes to us through party channels. The campaign speaker wishes to secure the election of his candidate. The newspaper editorial reflects the views of the party to which the editor belongs. And even the member of Congress speaks in support of a particular measure, and not to present to the people the whole truth. There may be no intention to mislead, or to convey a wrong impression, but too often the hearer or reader is misled. Were he himself thoroughly grounded in the elements of political science, he could readily distinguish between the false and the true, and could read, with advantage to himself, the views of those from whom he differed.

In college political science is taught as mathematics is taught, or chemistry, or psychology. The question in the class-room is not what will be for the advantage of this party or that, but what is the truth. The inquiry is what does the Constitution say? What laws have been enacted under it? And what has been the judicial interpretation of those laws? The teacher should be unbiased, like the judge. The class-room is no place in which to dogmatize. And with a group of keen young men before him, coming from families where all shades of opinion are held, the professor would find himself compelled, even were he otherwise disposed, to avoid everything that looked like partisan instruction. In a well-ordered class-room there is always opportunity for discussion, and especially when such subjects as these are under examination. The students become thus accustomed to investigate for themselves; they form their own opinions; and they enter upon the duties of citizens with some definite knowledge of their country and its institutions. You will hardly expect such men to take as a motto, "our party, right or wrong," but rather that they will use their influence to make their party right.

It is because there has been hitherto so little of exact knowledge on which to build, and because so many of the ideas current on political subjects have come through partisan channels, that so much of vagueness, not to say error, attaches to our early political history. Take the period before the Constitution. Some years ago a gentleman, who had been much in public life, and had represented one of the States in the United States Senate, made a speech containing the following passage:

"After the Revolution the States being bound together only by temporary association were all leagued together but were totally independent of each other. When the Revolutionary war was concluded they were at liberty, if they thought proper, to exist side by side as so many independent sovereignties. The Revolutionary war had given them a right so to exist. The Articles of Confederation which had bound them together during the war ceased with the war, and therefore each State was independent to act for itself. Now when the Congress put in this amendment limiting the duration of the slave trade, why did they not put in an amendment limiting the duration of domestic slavery? Because they had no power to put it there."

Of all the statements here made it would be hazardous to affirm the truth of any one except the last. As Congress has no power to amend the Constitution at all, it is safe to say that Congress could not put in an amendment limiting domestic slavery. The ideas respecting our nationality are, in some minds, as confused as those of this United States Senator as to the Articles of Confederation. Another Senator once asked on the floor of the Senate, "when were the United States declared a nation!" All theories aside, it is well to know when the Articles of Confederation became operative and when they ceased, how they were formed and why they were set aside; so as to our nationality, what answer does history give to such questions as the one quoted above? More than three years before the Articles of Confederation went into operation, and almost a dozen years before the government commended under the Constitution, the first treaty made by the United States with any foreign power was made with France. This treaty was shortly after ratified on our side by Congress, as were all the treaties made prior to the Constitution. What is the language of this treaty? In Article 20, we read "For the better promotion of commerce on both sides, it is agreed, that if a war shall break out between the *two nations* six months after the proclamation of war shall be allowed, etc." In Article 21, —— "and if any person of *either nation* shall take such commission, etc." In using such language in these and other articles of the treaty, it would seem that the commissioners of the two powers by whom the treaty was negotiated, and the two governments that subsequently ratified it, regarded the United States as a *nation* as much and in the same sense as the nation of France. And it is not easy to see how the United States could have been "declared a nation" more formally or more solemnly than was then done.

Seven other treaties were made before the Constitution went into operation, and all contain similar language as to our nationality. Three of these were negotiated, in whole or in part, by Mr. Jefferson: one of them by him alone; one by Adams, Franklin and Jefferson; and one by Adams and Jefferson. It is noticeable that the treaty to which Jefferson's name alone is attached abounds with the terms *nation* and *national* applied to the United States.

Allusion is sometimes made to the plural character of the term, United States, as if this was an argument against our nationality. The implication is that if we had called ourselves America, Columbia, or some such name, we might have been a nation. It may be well to consult the usages of the fathers as to this point also. In the action of Congress respecting the Articles of Confederation the word *America* seems to be used as synonymous with United States. Thus in the ratification of these articles by the delegates on behalf of their respective States it is stated that the articles were agreed to "in the second year of the independence of *America*." And the formal ratification is, "Done at Philadelphia, in the State of Pennsylvania, the ninth day of July, in the year of our Lord 1778, and in the third year of the independence of *America*." In a circular letter, prepared by a committee and signed by the president of Congress, allusion is made to "the great principle of union which can alone establish the liberty of *America*, and exclude forever the hopes of *its* enemies."

A Senator of the United States once said, on the floor of the Senate, that he pitied the stupidity of the man who supposed there was or could be a citizen of the United States. Had he been more familiar with the early history of his country he would hardly have charged in this contemptuous manner Mr. Jefferson himself with stupidity. The treaty negotiated by him with France, in 1788, speaks of "the Sieur Thomas Jefferson, citizen of the United States of America." Elsewhere in the same treaty we find similar language: "If a subject of the most Christian King and a citizen of the United States are interested in the same cargo, etc." And again "when only the subjects or citizens of their own nation shall be interested, etc." Indeed, the expression, "citizen of the United States," occurs in the first treaty ever made by our government, that with France in 1778.

It is sometimes said that the separate independence and sovereignty of the thirteen original States were acknowledged by Great Britain and other powers because their names are given in the treaties made with those powers. But in this there is no uniformity. Some of the early treaties have "Rhode Island and Providence Plantations," where others have "Rhode Island." In some we find "Delaware," and again we find "the Counties of New Castle, Kent and Sussex, on Delaware." Was the separate independence of these counties acknowledged? It is noticeable that in the three treaties to which Mr. Jefferson's name is affixed, negotiated before 1789, no names of States are given, but simply the United States of America. In one of these we find not only the expression "a citizen of the United States," but "an American citizen."

There is misconception on another point—the matter of *delegated powers.* It is often taken for granted that while the government of the United States is one of delegated powers, the governments of the States possess inherent powers. The very idea of a Republican government implies delegated powers. The sovereignty is with the people, and they confer on the government such powers as seem best to them. The General Government has been clothed with certain powers embodied in the Constitution. In like manner a State government can exercise such powers as the people of that State have seen fit to place in their Constitution. What the people of the United States have not given to their own government, or prohibited to the States, may be embodied in a State government. The whole people—yet existing in States—have given certain powers to the United States government. These cannot be given to a State government, nor can those prohibited in the Constitution to the States. But of all other powers the people of a State may confer such as they please on their State government. Those thus conferred are, however, delegated to that government, and not inherent in it. This is not only obvious from the very nature of a Republican government, but it is the language of our State Constitutions. Thus the first Constitution of Ohio, framed in 1802, says: "To guard against the transgression of the high powers which we have delegated, we declare, that all powers not hereby delegated, remain with the people. In like manner that of 1851 says: "All political power is inherent in the people." "This enumeration of rights shall not be construed to impair or deny others retained by the people; and all powers, not herein delegated, remain with the people." Other States have put similar language in their Constitutions. "All political power is inherent in the people." The power of a government, State or National, is never inherent. It is what the people of that State, or of all the States, have declared in their Constitution that government may exercise.

As our system consists of a two-fold government, and we have two sets of laws and two sets of rulers, there is a liability to misunderstanding. Foreigners find it very difficult to understand our complex system, and some of our own people are perplexed by it. Instances are not wanting where individual States, deeming themselves aggrieved by some action of the General Government, have called in question the authority of the latter. Such was the case of Pennsylvania early in the century, and her Legislature said, "It is to be lamented that no provision is made in the Constitution for determining disputes between the General and State

Governments, by an impartial tribunal, when such cases occur." And they sought to have the Constitution amended so as to provide for such a tribunal. But no other State took the same view of the case; all that responded to her appeal opposed her amendment. Among these were Virginia and Kentucky, which States had themselves passed certain resolutions some ten years before. Virginia went so far as to tell Pennsylvania that the Constitution had already provided just such a tribunal as was needed, to wit, the Supreme Court; which was more eminently qualified to decide such disputes than any other which could be created. And the preamble and resolutions, disapproving the amendment proposed by Pennsylvania, were adopted *unanimously* in both branches of the Virginia Legislature.

A few years later Ohio had a grievance. Believing her rights to have been invaded, she re-affirmed the Virginia resolutions. Her Legislature, by a vote of thirty-one to two in the Senate, and unanimously in the House, asserted her right to do what an act of Congress had said could not be done. In this Ohio stood alone. And when the Supreme Court decided the case against her she quietly acquiesced. Usually the State that thinks herself aggrieved has had no sympathy from the others. Acting disinterestedly they have decided against her.

We can hardly be too familiar with the Constitution and its practical workings. Yet it is difficult to get exact knowledge from the current reading of the day. The student needs an outline, clear and definite, which by his future reading he may fill up and enlarge. Without this he may read to little purpose. If in college he has had brought before him the prominent legislation under the various articles and clauses of the Constitution, he readily comprehends the bearing of new legislation; he will not be imposed on by statements which have no foundation in truth. In the warmth of debate the disputants on both sides are tempted to exaggeration. Take the question of money, so much debated of late. The Constitution gives Congress the power to *coin money*. The natural inquiry under this is, what has Congress done to carry out this clause? What is the money of the country? And what have been the changes in the money legislation? The history is simple, but how few know it? How often statements are made, even on the floor of Congress, the authors of which when asked for their authority can only say that they think they have read this somewhere, but they cannot now recall it. How few seem to know that silver was virtually demonetized in 1853, and that the legislative action of 1873 was but a formal ratification of what had been really done twenty years before.

The history of American money prior to the Constitution is full of interest, but it is far from simple. The transition from pounds and shillings to dollars and cents, and the changes from sterling to colonial values, as well as the differences between the colonies themselves—all this is unwritten history. It is pleasant to remember, standing as we do to-day in the Empire State of the South, that of all the thirteen colonies Georgia kept her currency nearest in value to that of Great Britain herself. While the pound of New York and North Carolina was worth but two *dollars and* a half; that of Pennsylvania, New Jersey, Maryland and

Delaware, two dollars and two-thirds; that of New England and Virginia but three dollars and a third; that of Georgia was worth four dollars.

I commend this subject of Political Science to my fellow teachers in the higher institutions. I trust the study of it may become much more prevalent. Its importance must not be judged by the inadequacy of this presentation. Your own observation of the power of government must show you how it affects all human interests. Courts are held all over the land, in which titles to property are determined, before which men are arraigned and tried. Men like ourselves send their fellow-men to the penitentiary, or it may be to the gallows. The judge may have erred in his charge, or the jury may have rendered a wrong verdict; but none the less the gates of the penitentiary close upon the criminal, none the less goes he to the scaffold. How knew we that the law was just, or that wise men enacted it? Or what right had the Legislature to pass laws involving these dreadful penalties? And this brings us back to the foundation of government and law. God has ordained that there must be rulers; that laws must be enacted, and men be punished who violate them. But it is a tremendous power with which the officers of government are clothed. And how imperative the necessity that all who wield such power should be wise and honest men, over whose eyes no film of ignorance is allowed to gather, and whose perception of truth and justice no interest or passion can ever distort.

Dr. H: H. TUCKER, of Atlanta, was introduced, and read a paper on

THE ADVANCEMENT OF THE HIGHER EDUCATION.

When the prominent and influential men of any State or country are looked for, search is not usually made among the teachers. Even in a small community of four or five thousand, teachers are not apt to be the leading men. Personally, they may be held in high esteem, and as a class they may be regarded as useful men whose services cannot be dispensed with. But the profession is not one of the first grade, nor of the second, nor of the third. It is outranked by the profession of law, of medicine, of divinity, of engineering, and even by the calling of the small politician. With rare exceptions its members are not the peers, in public esteem, of bankers, merchants, manufacturers, or agriculturists. The teacher comes in after all these, and next after him comes the skilled mechanic, and one step more takes to the day-laborer, who is at the bottom of the scale. Of the hundreds of thousands of teachers in the United States, how many are there who hold, or have held, or are likely to hold positions of public importance? How many who occupy a large place in the public mind? How many who are appealed to in emergency for counsel? They are often asked to settle questions of grammar, and to solve silly puzzles in arithmetic, and sometimes a professor of chemistry is called on to testify as an expert in court; but how often are they asked for their views on any great question of public policy? How much weight would their opinions have on any subject not strictly germane to the school-room or the lecture-room? When President WHITE, of Cornell University, was appointed United States minister to the Court of Berlin, the whole country was surprised. It was an unheard of thing that a teacher should be called on to negotiate business between two great empires. If the Honorable POTIPHAR PEAGREEN had been appointed, nothing would have been thought of it. If the present Chief Magistrate of the United States had remained in the profession of his early life, it is very certain that he would not now be the occupant of the Executive Chair. Men have been unexpectedly called from the plough-handle to the helm of State, but there has been no CINCINNATUS among teachers.

Now why is all this? As with every other phenomenon, there must be a cause for it. I have not the least hesitation in saying, that the reason why the profession is assigned to a low grade is this: that taken as a whole, its members are worthy of nothing better. Society has not reasoned out the case it is true, and if called on to justify itself might stand mute; but by what we may call a kind of instinct, it has divided out its esteem and its honors, in this case, as often as others, righteously.

A more searching inquiry now presents itself. Why are teachers not worthy of a higher position than that accorded them? Are they deficient in mind or in morals? Is there anything in their blood that makes them inferior to other men? Of course, their nature is simply human nature; there must then be something in the profession which puts the man at a discount.

A still more searching inquiry is now before us. What features are they in the profession, which detract from the power of the man and the citizen?

In answering this question, we must pass by the noble and ennobling peculiarities of our vocation, and regard only those of opposite character. The view will not be gratifying, but it may be profitable. The profession of teaching, even in its higher departments, involves elements which are apt to be belittling to mind and character. It behooves us well to recognize the points wherein we are weak, in order that we may strengthen them; and when our weak points are made strong, then shall we be strong indeed.

1. Let us observe in the first place, that our work is almost sure to degenerate into mere routine. The same text-books are used year after year, or if not, others of the same character take their place. Comments on these are made to class after class with little variation. Each passage makes its natural and proper suggestions, and these are repeated over and over; the same illustrations, or others just like them, fall into line at the proper time like soldiers thoroughly drilled; the same argument which demonstrates the truth of a pet theory presents itself with astronomical exactness, at each annual revolution; the same scraps of humor slip slyly in at their appointed places, and it is well that at the end of the year the class retires, for in succeeding years its members might discover, that despite the paradox, it is possible for humor to be dry, and not in the sense of being droll. A course of valuable lectures is prepared, at the cost of much labor, and in this preparation there was much developing power; but if these are greatly altered they are injured, for at the

beginning the teacher did his best; and hence they must be repeated, in substance at least, if not in very words, time after time. As years roll by, the work becomes merely mechanical, and exercises the mind no more than the daily recitation of the multiplication table by a professor of mathematics. Of course, the philosophic teacher, who studies the welfare of his own mind no less than that of his pupil, will struggle against the influences referred to; but many teachers are not philosophic, and even those who are, find it almost impossible to avoid a perpetual repetition of themselves. Hence their minds move on hinges, not on wheels, and they fail to make progress, and at the end of thirty years' teaching find themselves just where they were at the beginning.

2. Another unfortunate feature of the profession is, that its sphere of thought is narrow. Certain things must be taught in the schools, and the division of labor assigns to each man a specified portion. With this his mind is apt to be absorbed, and it is well if he does not imagine that everybody else's mind ought to be absorbed in the same way. The president of the college has to keep the peace between the mathematician and the linguist, between the chemist and the engineer, lest each, in his enthusiasm for his department, should claim more than his share of the time. This devotion to a specialty, while it may perfect a man's work, does not perfect him; instead of enlarging his conceptions, it contracts them; he shrinks to the dimensions of his task, and instead of being a broad expanse, follows a line, and thus becomes a line,—that insignificant thing which has but one dimension.

3. Another thing to be noticed is, that a teacher always deals in the impractical; I have not said in the impracticable. The principles taught in the schools are valuable because they are true, and because they are applicable, some in one direction and some in another, to all the affairs of life. But the application of those principles is made by the pupils when they leave college, and not by the professor who remains in it. Some of the best professors of medical science have been known to be wretched practitioners; some of the best-read lawyers have not been successful in the strife of the forum; and it is possible that a good professor of engineering might be embarrassed, if called on to build a bridge which one of his pupils with three years' experience could easily construct; and that a professor of languages who had spent his life on the dative would be by no means so ready, or so felicitous in the use of language, either in conversation, or in writing, or in public speech, as a young orator with a tithe of his attainments, whom himself had trained; and I am sure that the visitors here, when on their way home, would feel safer on the railway train in the hands of the untaught and sooty engineer, than if the locomotive were managed by the ablest professor of natural philosophy in this body. Of course there must be men who make a business of teaching the principles on which all the arts are founded; but while they are doing this, they do nothing else; and the longer they continue in their profession, the less qualified they are for anything outside of it; consequently they become human abstractions, fit for nothing in the concrete. They dwindle almost to points, having no dimensions

of any kind, neither length, breadth, nor thickness. No wonder that the world ignores them.

4. We may observe, as a fourth point, that a teacher's life is almost necessarily monastic. His business shuts him out from the world, confines him in narrow limits, and dissociates him from his fellows. Human nature is so constituted that it never develops into its best estate except in society. A recluse seldom becomes great, and even if he were so, the world would never know it. If the teacher is separate from the world, it is but a truism to say that the world is apart from him; and he can neither receive from it the benefit which it could give, nor contribute his share to the general advancement. His lecture-room becomes his world, and a small world it is; and we may suppose that small worlds have inhabitants proportioned to their own diminutiveness. Certain it is that large fish are never found in small ponds.

5. A fifth trouble is, that the teacher has but little opportunity for reading or for thought. When his day's work is done, even if he has the time and the desire to broaden his culture, his vital forces are so let down, that mental effort is feebly made, if made at all; and thus a few years will bedwarf a noble man into a mere pedagogue.

6. Another misfortune is, that teachers have not usually the means to travel, and hence they are apt to become provincial in their habits of thought as well as in their habits of life, in their dialect, and in their tastes; and are almost sure to retain through life, the petty prejudices of a locality, which every man is apt to form before his beard is grown. Thus a kind of boyhood becomes chronic, and the professor, venerable and learned, lacks the enlargement and the finish which nothing but influences widely cosmopolitan can give.

7, One of the greatest difficulties that a teacher has to contend with is the fact, that his mind is brought into continual contact with minds inferior to his own. Perpetual stooping lowers his stature; the unused mental muscle becomes flabby; the whole constitution from lack of manly exercise, becomes debilitated. The strong wrestler is he who wrestles with men, with athletes, not he who dawdles babes. True, in every class of young men in college there is almost sure to be at least one who will test his master's metal, and oftentimes the professor, emasculated by his enervating life, is too weak or too cowardly to measure arms with his pupil, and the inquiries of the astute-minded youth are put off with evasions, or with stereotyped but unsatisfying answers. The teacher's role is didactic rather than polemic, and hence he is apt not to avail himself of the few opportunities he has of showing his manhood. Nor, perhaps, would it be expedient to change the lecture-room into the arena. The professor's whole life, after the first few years at least, is expended on things inside its present energy, and energy is not apt to extend itself beyond what its occasions call for. Hence, there is not only no growth, but a shrivelling up of intellectual power. Instead of measuring with his peers, the teacher measures himself with boys, and when he finds himself somewhat superior to these, he imagines himself to be equal to men,—though he is nothing but a teacher. Instead of fighting the battle of the world, he is at home in the nursery, preparing mental pap for the children, acting wet-nurse for the world's future heroes.

Misfortunes breed misfortunes. As the result of the unhappy influences named, the teacher is apt to become dogmatic, imperious, and impatient of contradiction. His position is necessarily magisterial, his dicta, for the most part, must be received unquestioningly; and when in outside life he finds himsef faced with opposition, he feels himself aggrieved, and either falls back on his dignity to growl in solitude, or else defends himself with acrimony; and in the latter case, being unaccustomed to the rough and tumble of this rude world, he is apt to get the worst of the encounter. The world respects its fighting men, and a man so easily whipped is not likely to stand high in esteem, nor to be selected as the champion of any cause.

I have said, that our profession holds low rank with the world, and that the reason of this is, that it deserves no higher; and that the reason why its deserts are so meagre is, that it is subject to certain depressing influences, and these influences I have pointed out.

I have now to say, that the fact that our profession does not hold higher position is a great evil, and one which ought to be remedied. Waiving the dozen reasons which might be given in support of this proposition, I come straight to that which if it be not the principal one, is the one which is most proper for our present consideration. Teachers should hold higher rank and be worthy of it in order that they may be *better* teachers. The teacher himself is the chief text-book in any seminary of learning. It was not what SOCRATES taught that made men of his pupils, it was SOCRATES himself. If there had been no SOCRATES, there might have been no PLATO, even had the same lessons been learned. Pupils read the man, and learn more from what he is than from what he says. Construe me not too strictly, and I will say, that second-rate teaching by a first-rate man, is better than first-rate teaching by a second-rate man. Personal and unconscious influence is the greatest power ever brought to bear on the minds of the young. What is learned by study is good; what is learned by absorption is better. Associate the mind of a youth with that of a man who *is* a man, and it will make a man of him. A wretched routinist can teach a boy algebra or geometry, or the peculiarities of the Greek verb, but the pupil will soon discover that he is a mere machine adapted to that purpose and fit for nothing else; and he will either look with disrespect on one who ought to be worthy of honor, or he will honor one who ought not to be honored. In either case, the reflex influence on his own mind and character will stimulate boyish vice, and repress manly development.

Besides the mere instruction communicated, let there stand before the pupil the colossal figure of a man, with the grace of APOLLO, with the muscle of HERCULES, endowed with the genius of ARISTOTLE, as well as with the common sense of every-day life, with practical sagacity no less than with theoretical wisdom, versed not merely in musty lore, but familiar with current thought, combining the elegance of the gentleman with the daily beauty of christian life; and from the sight of that figure the pupil will receive a far higher education than from schoolmaster's drill, or from able text-books, or from learned lectures. The great question is, not so much what is taught, nor how it is taught, but who teaches it. Let the teacher be a man of breadth as well as of depth, catholic in his culture, and great in himself. Such a teacher will inspire enthusiasm in study, and when that is done, almost all is done. It is easy to give the pupil the little assistance that he needs in his studies.

Admit that this is a fancy sketch, and that the standard is one which cannot be attained. It is well, nevertheless, to enjoy the inspiration and receive the impulse of a grand ideal. If all who strive do not attain, it is certainly true, that none attain except those who strive.

But aside from fine theories, and coming down from poetic vision to plain, prosy, practical matters, what can teachers do to elevate themselves and their profession? It is needless to speak of the importance of a thorough knowledge of the subjects on which instruction is to be given, of the best modes of teaching, of the necessity of fidelity and zeal in the work; for these are common-places on which perhaps enough has been said. In general terms, it may be said, that the professor should note the points wherein his business retards his growth or diminishes his power, and seek for each its appropriate remedy.

If he finds that he has fallen into a routine, let him determine to strike out a new course. Let him introduce new topics if possible, or if not, let him invent new illustrations and arguments. He may find it hard to dig out new channels of thought; but the harder it is to do, the more satisfaction there will be in doing it. He will find too, that the more he draws from the wells of thought, the more thought those wells will supply. It will aid him in his work to change his text-books. If he gets a better book, the advantage will be to him quite as much as to his pupils; if he gets a worse one, the necessity of supplementing its deficiencies, will help to lift him out of his well-worn ruts.

If he has taught in one department, until he has exhausted his resources there, and finds that in it he can expand no more, let him change his department. It is said that the lobster which wears its skeleton on the outside, on finding it to fit too tightly, casts it off, and having swelled to proper dimensions takes on another of larger size. In a somewhat similar way, a man may enlarge himself by throwing off the crust of an old professorship which binds him, and entering a new department. It is not improbable that new life and vigor would be infused into many a College Faculty, if the members of it were to exchange chairs with each other, so that no one of them could longer pursue his beaten track.

So far as possible, consistently with his professional duties, the college officer should bring his powers to bear on some of the practical operations of life. Not that he should equally divide his time between two vocations, but that he should give a certain amount of time to some kind of actual business, such as will keep him from being a mere book-worm. Time judiciously spent in this way, instead of interfering with his professional success, will promote it.

The monkish life of the professor should be abandoned, and the society of both men and women should be sought. If this takes him away from his books, so much the better. Books are good servants but bad masters;

a book-ridden brain is apt to be a servile brain, and one which will do but little work that is really its own. The unsocial man is an undeveloped man, and an undeveloped man can never be in the highest sense a successful teacher. No man can be at his best who fails to avail himself of all the means which Providence has afforded for human advancement. Society is one of these, and those who neglect it, must suffer the penalty.

So far as possible, a man's reading must be outside his profession. Nor is it desirable that all one's reading should be solid and ponderous. Lighter literature, books of travels and some of the choice works of fiction, bring to the student changes in his habitudes of thought greatly to his advantage, and enliven him with a vivacity which will promote his success as a teacher. The newspaper is a fine educator, its very advertisements are instructive to one who knows how to get instruction from them. The current events of the day should be as familiar to the professor as to the man on change. The politics of the country should engage so much of his attention that he will know all the issues between the parties, and all the arguments for and against on each side. If all this takes time from professional study, the loss is compensated for, by that increase of professional power which is always the result of varied attainments.

If travel be possible, the teacher should avail himself of it, taking care not to commit the common mistake of importing from abroad customs and methods, which, however proper and successful where they are in use, are not adapted to the different conditions at home.

But above all, and more important than anything else, as the professor is in daily contact with undeveloped minds, let him try to counteract the effect of this, by daily contact with his superiors if he can find them, and if not, then with his equals. Nor is it desirable that his most frequent intercourse should be with his brethren of the profession. These are too much like himself. Let him seek his opposites. Let him cultivate the society of the active, practical workers and thinkers, who are in the bustle and whirl of business. Let him talk with bankers and brokers, until he learns all about banks and breaks, and let him so inform himself that his opinions on such subjects will have some value. Let him associate with merchants, until he learns something of the laws of trade and of the practical working of those laws in the actual experience of merchants, and of the qualities and varying values of merchandize; let him keep company with politicians, until he has learned their ways, and until he has acquired such a disgust for them that he will be sure not to walk in them; with lawyers, until he can converse with them intelligently on the topics of their profession; with physicians, until they will half incline to consult with him in important cases; with agriculturists, with manufacturers, with railroad officials, with mechanics, with soldiers and with sailors; in short, with all classes of people, until his knowledge shall be so encyclopedian, that while not very profound, it will at least keep him from being laughed at, and in many cases will command a high respect. Clergymen are apt to be too much like himself to afford the best cross-breed of thought; still, their standpoint is somewhat different, and at any rate he needs their counsel, and will be comforted by their sympathy.

The professor should take part, so far as his duties will allow, with other men in those active concerns of life in which many must co-operate, so that his pupils may see that he is not only a man among boys, but a man among men; one whose power is felt, whose stroke knocks the breath out of opposition, and one who, when still and silent, is recognized as a living and potential presence. Such a man, if thoroughly qualified to teach by hard study long continued, and by a fair experience, may take a class of young men, and under normal conditions he will control them; he will control not merely their manners and their habits, but their very thoughts, and their very hearts, and their whole nature; from him they will receive the highest of the higher education. Compare the teachings and influence of such a man with those of a mere specialist who knows the round of a curriculum, or who can repeat his old lectures on a narrow range of topics, and see the difference.

No teacher should allow himself to be a *mere* teacher; his mind should overlap his profession. A mechanic may be a mere mechanic, and still earn his wages and do all that is expected of him; even a physician may be a mere physician, and still be successful at the bedside; a lawyer may be a mere lawyer, and still satisfy the demands of his clients; but our profession is that which prepares all other men for their professions; we are the makers of those who are to be the rulers and owners of this world, and the masters of its history and destinies. There is more call for wisdom, and for knowledge, and for power, in our profession than in any other, not sacred. The teacher ought not to be a *mere* teacher, "only this, and nothing more;" he ought to be this, and vastly more. While he should throw himself into his profession with zeal, yet his life ought to be largely outside of it; outside of it that he may be more successful in it.

Great men never live in small places. True, one may eat and drink and sleep in an obscure village, or in the depths of a forest, but his life is not there; that is only its central point, its circumference is indefinitely large. The great city of London is too small to hold the life of a great man; our continent is but a speck; the world itself, with all the interests that it projects into coming time and into eternity, is the only habitat of greatness. The same is true of professions. No one of them, except the divine, is large enough to contain all that there is of the life of a great man. Great men are not needed in the ordinary pursuits of life; common men answer for common purposes. But on us teachers the greatest and highest demands are made; not perhaps by our contemporaries, who seem to be incapable of appreciating the magnitude and grandeur of the work, but by posterity. The world of a century hence, and indeed of all the centuries, is making a draft on us in advance, a draft to meet which, the possibilities of human nature are strained to the utmost.

We cannot all expand ourselves into greatness, but we can expand towards it, and every gain is a glory and a blessing to ourselves, to our pupils, and to the world. Let us not be satisfied to be mere experts in specialties. True, the work of these must be done, patiently done, painstakingly done, thoroughly done, by men carefully prepared for it, but the man who is satisfied with himself if he does this and nothing more, is a man of small dimensions. Take him altogether, there is very little of him. He is a kind of human triangle, a figure with the smallest possible number of sides that can inclose any space whatever. Let him add one more side at least, and be a square man. But what we want is many-sided men, myriad-sided men, nay rather men the sphericity of whose powers and of whose culture makes them perfect men.

And now that I have exhausted nearly all my time, I have just come to the subject which I proposed to treat; but the preface seems to have rendered treatment unnecessary. The object of my discourse is to advance the higher education. Is it necessary, in addressing a body of men, every one of whom is acquainted with natural philosophy, to tell them how, by the easiest and most natural means, to raise a confined stream? Raise the fountain! Too much attention has been given to boys, and not enough to men; too much to the student, and too little to the professor. The forcing-pump process, which by outside pressure raises the stream to a point higher than its source, is not the proper one for education. The graduate of a few years looks down on the professor who taught him; having attained to distinction, he disdains the profession which prepared him for it. Let us so elevate the professor that he can never be looked down on by anybody, and this will raise the higher education to the highest point attainable.

Anticipating reply to the view that has been presented, I may venture to say, that the concentrated essence of all reply, may be found in one word—in the word *smatterer;* or if the object be to make ridicule very severe, the expression *Jack-of-all-trades* would perhaps be used. These representative expressions are nothing but sneers, and extended notice given to these would be wasted. There is surely a difference between a smatterer and a man who while thoroughly equipped for his profession, is in addition to this, a man of general information; who while at home in one department, is a familiar visitor to many others; who besides being a man of the lecture room, is also a man of the world. Practical opposition to the doctrine of this paper, if carried to its results, would lead to great economy of brain, and would make a teacher a *mere* teacher; and a mere teacher is a mere mocking of a real teacher.

I have said that our profession subjects us to certain depressing influences, and of these, I have presented, I think, an exhaustive catalogue. I might have expatiated, at equal length, on its elevating tendencies, but this was not to my purpose. But when the evils are remedied, and the drawbacks removed, then the ennobling power having no obstructions, will raise our profession to where none can out-rank it; and then only will the teacher's power, *as* a teacher, have reached its maximum; then only will the rising race have the best opportunities possible to them.

A few of us already hold high position in the world's esteem; these are teachers, and teachers, indeed, but they are not *mere* teachers; and none of us need be. When we shall all cease to be such, when each of us shall have made of himself all that can be made of the material that is in him, then will the grand impulses which our profession supplies make us necessary to the world not only as teachers, but as men; and the inherent dignity of our calling will receive due recognition. Then, if a teacher should be sent on an embassy to a Foreign Power, the fact will not excite surprise; nay rather, the surprise will be, if a very large proportion of all the positions of honor and distinction, requiring men of might, are not accorded to the greatest, grandest, noblest of all professions, not sacred.

Our calling is looked on now, with supercilious eyes by the very boys whom we have made what they are, so far as there is anything worthy in them; but one who spoke by inspiration eighteen hundred years ago, assigns to it a different rank. The great Apostle to the Gentiles, Paul; Paul the aged, Paul the noble, Paul the chosen vessel, speaking of various offices in order of merit, and carefully ranking each in its proper place, uses these words: "thirdly, teachers; after that, miracles." (I Cor., 12, 28.) Without regarding what goes before, mark what comes after! The true grade of our profession is the one assigned to it by apostolic and inspired wisdom. In our lofty eminence, looking down to a class beneath us, we see men working miracles—an inferior task; and if we ourselves do not raise the dead, we do a greater work by raising the plane on which stand all the living.

The following officers were elected for the ensuing year, upon the recommendation of the nominating committee:

President, I. W. ANDREWS, of Marietta, Ohio.
Vice-President, H. H. TUCKER, Atlanta, Ga.
Secretary, G. M. STEARNS, Topeka, Kan.

NORMAL DEPARTMENT.

THURSDAY, JULY 21, 1881.

Thursday the meeting of the Department of Normal Schools was called to order by the president, **Jerome Allen**, of St. Cloud, Minnesota.

The following named persons were elected officers for the ensuing year, in accordance with the recommendation of the nominating committee:

President, C. C. **Rounds**, of Maine.
Vice-President, T. C. H. **Vance**, of Kentucky.
Secretary, **Jerome Allen**, of New York.

The President then made the following introductory remarks on

THE NECESSITY OF A NORMAL SCHOOL IN A PUBLIC SYSTEM OF INSTRUCTION.

The lack of trained teachers is one of the great evils of our public school system. There is no place in the civilized world where this lack is not felt. The very worst feature connected with this lack of professional education is the fact that there are found those who declare that a teacher needs no other training for his work than that which may be obtained in the ordinary recitation room of a good academy or college. They say that to know a subject is a good and sufficient preparation for teaching it. We do not propose to discuss this assertion. We only desire to state that in our opinion it is a monstrous educational falsehood. The vocation of teaching will never become a profession until it is believed that the laws of mental growth are as fixed as the laws of physical growth, and that they must be known by those who guide the developing powers of the growing mind.

How can he direct in that concerning which he knows nothing? To many persons, education consists in nothing but certain stereotyped rules, and performing a few fixed conventional processes. If one can read with reasonable fluency and knows what the books say concerning the fundamental branches, he is said to have obtained a good elementary education. The fact is not generally recognized that education consists in developing and strengthening *all* the powers of the whole being, moral, mental, and physical, as a preparation for the work of life. A pupil may pass good examinations and yet not be receiving a good education. A teacher may know all that is required concerning the subject-matter taught, and yet be a poor teacher. Good teaching is purely professional, but good knowing has nothing professional in it. This principle has been so thoroughly discussed that there is no necessity of occupying farther time in considering it here. Our real teachers admit a world-wide difference between *good memorizing* and good teaching—between the sham, of cram, and the genuine gold of real instruction. There is no *real* school in which pupils are taught where there is not a real teacher.

This is not a new doctrine, on the other hand it is as old as the human race. Observation was the first basis of generalization, and not until books became somewhat abundant did their worship commence. This is unworthy the thinking, acting, progressive age in which we live. The Chinese have preserved the text-book method of instruction in its full perfection. To them nothing is valuable except what is committed to memory. Every result of independent thought is discarded as worthless. With us, thought is everything, repetition, nothing. The question is not asked in the centres of industry "How much do you know?" or "How much can you repeat?" but "What can you do?" or "How rapidly can you execute?" The thousand inventions which have revolutionized the work of the world owe their origin to independent thinking. To carry on this industry and this thought there must be schools for mental culture. Books must be consulted, but only as aids to the independent thinking so necessary to the progress of the human race. Drones and repeaters and memorizers in the school-room are worse than useless—they may go through the routine of a prescribed curriculum but they never can prepare the mind for the thinking of the world. We want nineteenth century teachers, not tenth century ones.

Underneath the very existence of the church and State stands the school and all possible arguments demand the thorough professional education of its teacher. Do untrained and consequently unqualified teachers enter the school-room? Does the State, through its officers, ever tell a legal lie when it declares that certain persons *are qualified* to instruct its youth? It could be told how the case stands in New York, Texas, Maine, and other States of the union. It shall only be told what is the condition of professional training in the Empire State. Here there are a few more than thirty thousand teachers, of whom one-half leave the vocation annually. Of this number nearly all have received absolutely no professional training. They enter the school-room knowing nothing concerning the science of the mind and the methods of its culture. Notwithstanding this, New York is doing more for the professional training of her teachers than any State in the union, or perhaps any equal territory on the face of the earth. Including the Normal College of the city of New York, she has nine Normal Schools, each one of which receives $18,000 annually from the State. Pupils are charged no tuition or incidental expense, and when they return home mileage is paid in cash. In addition, the State pays a board of institute instructors, whose entire time is spent in conducting teachers' institutes in each county in the State, to which all teachers are invited to attend free of all expense. The State is also divided into commissioner districts, each county constituting at least one, and some having as many as three, in each one of which is a superintendent of schools, whose entire time is devoted to the work of supervision, his salary being paid by the State. Normal classes in academies are also provided for by the State, in which many pupils are instructed in the theory and art of instruction. We are *safe in saying* that no where in the world are such facilities afforded for the instruction of teachers as here. Surely the results should in some degree be commensurate to the labor, money, and time expended. But what are the facts? How, in this paradise of normal school facilities, there are annually found in the school-rooms at least five thousand certificated teachers who have received no sort of professional instruction, either in a normal school, an annual institute, or in an academic institution. Of the 30,000 teachers only about 3,500 attend the normal schools, and of this number only a small per cent ever graduate.

But if these facts can be asserted of the Empire State, with her unparalleled facilities, what shall be said concerning other States where almost no normal school opportunities are enjoyed? What shall be said of Georgia and Texas, of Mississippi and Florida, of Kentucky and Ohio? Shall we say that professional training is not needed for teachers? Shall we send into our smaller schools an army of boys and girls, who know a little of the three R's, and absolutely nothing of the science of the mind? We degrade ourselves below all other professions by our suicidal policy of indifference in regard to this most important subject. If we are to have schools, by all means let them be taught by *teachers*—not by pretenders. If we are to act as though no preparation is needed for the teacher's desk, then the sooner we close a large part of our ungraded schools, the better will it be for the tax-payers and the patriot, for we shall not only continue to throw away our school money, but produce young men and women of no credit to the republic in which we live.

Fellow-teachers, the normal school is a necessity, and not until all our teachers are obliged to graduate from a genuine normal school, shall our vocation rise to somewhat the dignity of a profession.

J. C. Gilchrist, President of the Iowa State Normal School, then read the following paper on

WHAT CONSTITUTES A NORMAL SCHOOL?

The purpose of a Normal School is the preparation of teachers for the various offices in the school system of a people. This system in the United States is made up of the schools under the control of State governments, and those under the control of the religious denominations or of individuals or corporations. This preparation of the teacher by Normal Schools, should be as perfect as the use of all appliances afforded by the thought and discovery of the world will admit. There are many things which will prevent any near approach to perfection in this preparation of the teacher, such as unfavorable conditions in the minds of those who are to be prepared, and the intricate nature of education itself, the subject for which the preparation is made, the sublety and manifold forms of which seem to baffle a definite analysis and elude a practical systemization.

What Constitutes a Normal School? Simply this, the embodiment in that school of all known and approved agencies that qualify men and women to direct the development of the intellectual faculties of the young and the establishment of their moral power.

The only known process for the development of the intellect is the search for truth, or for what actually exists, and the conscious reproduction within the intellect of this truth as well as the subsequent and continuous contemplation of it. In brief, the learning of truth is the only way to produce intellectual discipline. But this learning can be carried on successfully only by the aid of a teacher; and, for the very young, a living teacher. One of the great offices of a teacher is to teach; and a Normal School must prepare him to fill this office completely and effectively. Whatever instrumentalities tend to qualify the teacher for teaching, the Normal School must possess. If its students are not qualified to teach, then it does not fulfill its mission. At this point it is appropriate to inquire what teaching is. Teaching is the proper adjustment of the matter to be learned to the capabilities of the learner. Teaching is causing a learner to know by directing his mind to some truth through words, gestures, experiments, illustrations and exhortations; and the learner's mind when thus directed, is trusted to receive the truth and construct it into a reality of consciousness. Now, a teacher to teach successfully must have three qualifications, at least; and to the cultivation of these three, the energies of a Normal School must be directed.

I. *A teacher must thoroughly know the subject-matter that he teaches in order to teach others effectively.* Hence, a constituent feature of a Normal School is the instruction of the teacher in the sciences composing the courses of study in the schools of the times. No one has controverted the statement that the teacher should be master of the sciences which are to be taught by him. On the contrary, great stress has been laid on this qualification. It is the one thing that passes under the test of a formal examination by properly constituted authorities, and engages, to a great degree, the attention of school officers in their selection of teachers. To-day, as in the past, it stands in the mind of the people—educated and uneducated alike—the one supereminent qualification. It is probable that this receives altogether too much consideration, overshadowing other requisites; but, be this as it may, the great importance of excellent scholarship in the teacher will always be acknowledged.

But there has been a question raised and much discussed; *Is the Teaching of the Sciences to be taught a legitimate business of the Normal School?* There are some who say that it is not. They claim that the Normal School is a professional school, and that when it essays to teach the sciences it leaves its proper sphere and invades the provinces of other schools. They insist that the teacher should go to the Normal School properly invested with knowledge, already acquired, and there be trained in the theory of education and the art of teaching only. The charge is made that Normal Schools do nothing more than academic work, and if the charge be true, all will readily admit that such schools are not Normal Schools in any true sense. But the claim that no part of the work done in the Normal School should have any similarity to the work done in academies and colleges is wholly untenable.

The argument against the teaching of a course of study similar to that of an academy or college by a Normal School, is based on the following assumptions:—

1. It is assumed that the quality and degree of the scholarship produced by the academy is equal to that produced by a Normal School. I believe that all candid inquirers will say that, in general, the scholarship of academic students is not as good as that of Normal students, especially in the branches generally taught. Nor is an equality required by the nature of things. The teacher needs a deeper comprehension and a more critical mastery of these subjects than they who are to enter the ordinary business of life. The scholarship that answers the demand of the one, will not meet the demands of the other. This statement does not reflect discredit on the instruction of Academies and High Schools. Their work, according to their standard is creditable in the great majority of instances.

2. It assumes that the aim and spirit of the instruction given by the two classes of schools is the same. This is a grave misapprehension. The methods by which the sciences are taught in Normal Schools must be professionally and technically correct. Indeed, one of the aims of this teaching in a Normal School is to present to the teacher the method which will be his guide when he comes into the presence of his own classes. The student in the Normal School is concerned to learn the *method* of teaching as well as the scientific *matter* taught. He has two things to secure; the academic student but one, the science merely; and while the other is passing before him, he can be and usually is indifferent thereto. The two students under comparison are unlike in their spirit, the one takes all the interest of an adept or professional in the process of teaching: the other, the mere passing notice of an observer.

3. It assumes that the general scholarship of a Didactic student bears the same relation to his profession that the general scholarship of a Law-student (for example) bears to his profession. From this premise it is claimed that since the Law-school insists on this general scholarship as a prerequisite for entering it, so ought the Normal School to insist on the same conditions. "Other professional schools do not teach the sciences, and why should the Normal School teach them?" it is asked.

But the assumption which is the basis of this argument is not correct. The relations of this general scholarship to the profession of each student are not parallel or equal. This general scholarship of the teacher passes out of its common character and assumes a professional character. This general scholarship is the teacher's professional furnishing, which he must use in every process of his work. It is not an accessory but the chief force; not a mere accompaniment but the main instrument. As the physician daily needs the principles of Materia Medica, so does the teacher daily need the principles of Mathematics. But the principles of Materia Medica are taught at the Medical School, why should the principles of Mathematics not be taught at the Normal School?

4. It assumes that scientific instruction, belongs to the academies and colleges by priority. True, Normal Schools are institutions of later birth; yet in such matters, there is no law of primogeniture. Though we grant that these institutions have administered this trust well before the existence of Normal Schools, yet this affords no reason for their refusal to surrender it to the rightful claimants when they come forward and ask for their own. By much less ought these academies and colleges to refuse

the Normal Schools a form of scholastic work specifically distinct from what they themselves are doing.

It is, perhaps, proper to remark at this point, that there are some Normal Schools which may not come up to the standard from which this article is written.

5. It assumes that the claim of Normal Schools to teach the subject-matter of the sciences is of American origin, and that the practice of Normal Schools established by other nations does not sustain this claim. If this be true, a very strong point is made against American Normal Schools; and if the reverse be true, an equally strong argument is made in favor of American practice. How stands the case? Prussia more than a hundred years ago began to found Normal Schools. She has now 106 of these institutions scattered throughout the kingdom. To show the practice of that country I insert the course of study taken from the Circular of Information of the Bureau of Education, No. 1, 1878.

Religion, Pedagogics, German language, Arithmetic, Geometry, Natural Sciences, Geography, History—Prussian, German, Greek and Roman—Music, vocal and instrumental, Drawing, Penmanship, Gymnastic exercises, French or Latin. I know of no Normal School in America or Europe that ignores in its course of study instruction in the Sciences, Literature and Art.

From all this. and more that can be adduced, it is clearly established that an essential feature of a Normal School is the teaching of the sciences that enter into the curriculum of our schools.

II. *A teacher to work understandingly, must know the human mind and its phenomena.* Hence, a second constituent feature of the Normal School is the instruction of its pupils in the science of Psychology. The importance of this is so apparent that amplification seems unnecessary. How can a teacher carry on this important and occult process, education, without a thorough knowledge of the physical and mental faculties of man? And yet, thousands without such knowledge are attempting this wonderful process.

To the Normal School is presented a very extensive and inviting field, the cultivation of which is its absolute duty. At every such question as these:—What is the nature and character of the mental faculties? How does the mind act and what is the cause of its activity? What is the product of their activity? What is the act of knowing? There comes over us a feeling similar to that one would experience in the midst of a great wilderness. And yet all progress in the development of a Philosophy of Education depends on the completeness and accuracy of the science of Psychology.

III. *A teacher must be able skillfully to adapt the matter which he teaches to the mind of the learner.* To do this, account must be taken of the age, the mental condition, and the constitutional character of the pupil, as well as the nature of the subject in which instruction is given. Hence, a third constituent feature of the Normal School is the teaching of true systems and methods of instruction.

The Philosophy and Practice of Methods are departments of great value. The greatest interest in them is felt by every educator who is concerned for the perfection of the Didactic art. In Normal Schools, especially, should the culture of these subjects be carried on systematically and enthusiastically. In them should be taught the latest and best results of recent investigations in regard to systems and methods. These subjects have a very extensive area. Every science involves a variation of system; and every mind requires some variation of adaptation. The normal student should be deeply grounded in the Philosophy of Methods, and rendered skillful in the art of teaching. Each branch to be taught should stand out with great clearness and fulness to his intellectual vision, and then he should be quick and skillful in the application of true methods to every necessity that may present itself.

IV. *To acquire a knowledge of true processes and aptitude in their application, the teacher student should have opportunities to observe them in actual use and also to get practice in them.* Hence a Model and Training department is the fourth essential feature of a well organized Normal School. It is not necessary to amplify on this feature. Its importance is readily granted by all parties. But I may be permitted to say that a Training department may be overrated in its usefulness in the preparation of teachers. Model schools, in my judgment, are most efficient in the phase of schools of observation by the student-teacher. The movements and methods carried on in the model school by the teacher of it, who is supposed to combine the highest judgment with great skill, are carefully noted by the student; he becomes familiar with them; and when this observation is supplemented by occasional trials of his own under the counsel of the regular and expert teacher, he soon acquires an ability in managing and teaching sufficiently competent for his entrance upon his profession.

It is proper to remark that no creditable Normal School designs to train its students in fixed processes of teaching, and to insist on strict conformity to them, the endeavor is to present the true laws of method; maintaining, however, that these laws are nature's laws, that they are not made by man and that by them all true teaching must be guided. No two teachers can have different laws of method guiding them. In this sense all true teaching of the same subject must be similar, if not identical, it matters not by whom taught. A difference in manner will exist but not in method, for by method is meant Nature. The object of the Training School is to induct the Student-teacher into the true spirit of method; and when he is possessed of this spirit, he can be trusted to develop his own tactics or forms of instruction. But it must be said that as teachers become more thoroughly versed in these laws their forms of instruction will be found to approach each other and often to be alike.

V. *A fifth distinguishing feature of a Normal School is the development of a high professional spirit among its students, and a deep interest in the cause of education.* The student-teacher must leave the Normal School permeated by professional zeal. He must feel that the subject of education is a great one, great as a philosophy, great as an art, because so spiritual and intricate, great as a progressive and civilizing force, and great in its relations to the welfare of individual and collective humanity in time and eternity. The Normal School must not let its students bear away the thought that there is any thing higher and nobler as a vocation,—that political preferments will give them honor in the true sense. It must so impress them that they will believe that their domain is so fertile and its atmosphere so pure, that they cannot be tempted to inhabit the boggy and miasmatic territory of politics, or to feed on the coarse sedges growing on the shores of party pools. They must be made to feel that they are not invited to the questionable seats of politcal honor, not because they are not capable, not because they are ignorant of political affairs or the movements of nations, but because society realizes the refinement and necessity of their mission, and knows that, in their withdrawal from that mission, a detriment would be done to the republic and a loss of position imposed on them. Let not the teachers of the Nation feel that they are excluded from its public honors and emoluments because of their supposed incompetency; and should it occur that any may be sent to missions like Berlin, they will long to return, as President WHITE now does, to the professors' chair and lecturers' platform. The good teacher is a good and great man whose voice the world is ever ready to hear on all vital issues. PHILIP of Macedon thanked the gods that his son, ALEXANDER, was born in an age that provided for that son such a teacher as ARISTOTLE. Let the Normal Schools help to make it possible for thousands of fathers to be thankful that their sons and daughters have able and true teachers.

In conclusion, let me summarize:—

1. A Normal School must instruct the student-teacher in the sciences he is to teach.
2. A Normal School must teach the science of mind thoroughly and fully.
3. A Normal School must teach the philosophy of education.
4. A Normal School must teach the true systems and methods of instruction for all phases of school-room work.
5. A Normal School must afford opportunities for observation in the Didactic art, and for practice therein by means of a Model and Training department.
6. A Normal School must develop a professional spirit in its students and cultivate the science of education in all its bearings.

And now I would add yet another feature to the Normal School.

The seventh feature is the development of a noble manhood and womanhood in all its students. It should give them quickness in perceiving all moral distinctions and an inflexible determination of conscience in their execution. I would add to all this a true culture, not so much in the mere conventionalities of society, but in goodness of heart and agreeableness of manners. I would have the Normal School point out the sources of all moral knowing and the divine force that regulates the human will. I would bring this moral power of the teacher to bear upon every pupil, and thus inculcate the highest laws of morals and establish the habits of the purest virtue both by conscious and unconscious tuition.

Mr. T. C. H. VANCE, of Lexington, Ky., then read a paper on

THE BEST NORMAL TRAINING FOR COUNTRY TEACHERS.

History teaches us that a complete system of education must be a result of many years' growth, and during its budding, blossoming, and ripening, there are many distinct, intermediate stages or periods. It is no less true of any subdivision of the educational structure, and in the branch called normal school we are in the midst of the age of shams and every form of clap-trap.

On the one hand we have the private normal school with an unlimited supply of special departments for the rapid production of full-grown teachers—the hot-house process; on the other hand we have the public normal school, that is, a school supported by a State or a city in which may be found a great deal of machinery and a superabundance of "my theory"—a kind of cold-frame process of growing teachers.

Having been engaged in normal school work for the past eight or ten years, I shall take the liberty of speaking in terms which might be considered out of place if presented by one not occupied in this special field.

There are more than two thousand instructors in the two hundred normal schools of the country, and doubtless fewer than the one hundredth part of that number are present at this meeting.

No direct relationship exists among these schools, and even in the same State there is a want of harmony in their work, and, too frequently the case, an open rivalry between State institutions.

It is quite generally accepted that there is a science of teaching founded on abstract principles, and that there is an art of teaching which may be learned at the hands of experienced masters, but we are all at sea as to the underlying principles of the former, and we are unwilling to accept any one as authority in the latter. We are *not* a unit, but on the contrary a house divided against itself.

It is truly a pity that we have so many great men in this country, not great in the estimation of others only, even great in their own estimation. These great men are most prolific in "theories" and if there is any one thing from which we should pray for deliverance, it is the person who has for his hobby a theory.

But I am to discuss the Training of Country Teachers: Mr. NEWELL says:—

"Training involves the idea of a plan—plan, of method—method presupposes underlying principles, and those principles arranged into a science: so we come to the question, Is there a science of teaching? Some teachers say no! and some good teachers too—just as Aunt Betsy thinks there is no science in making bread. Chemical work was going on in the world for thousands of years before there was a science of chemistry, and there have been and will be many blind attempts at teaching before the science of teaching shall be perfected. Even those who sneer at the science, agree that there is an art of teaching, and claim that they have it, and it is incommunicable. But can there be an art without a science? and if so, how is it to be acquired? They say, by practice; but will wrong practice, indefinitely continued, ever enable us to do a thing right? There must be something more than mere practice, or we shall go on copying and reproducing bad models. Without good models, our work will grow worse, instead of better. We may do things easier, but that very ease robs us of needed energy. Without the principles of the science, we are castaway sailors, not knowing which way to steer our course."

In some things training is tangible, and the reason for the same is quite universally accepted. By special training in the development of muscle, Kentucky produces the fastest horses in the world, but I can not see how we shall *train* a person for any of the professions without great detriment to the person on whom he practices. Graduates of medical colleges are not presented to the public as great physicians, and of the law school as great lawyers. The surgeon becomes eminent by the frequent use of the scalpel, and too often at the expense of many lives.

"It makes no difference," says one, "our teachers must be trained for their glorious calling," and possibly he is a monomaniac for the model or practice school. What constitutes this practice school, and what is done there? A number of children are selected, and if the principal have an eye to business, he will secure the brightest ones obtainable in order that the best results may follow.

These children are placed in charge of a pupil-teacher for a day, a week, or a month, owing to the *theory* of the person in charge of the instruction. The remaining pupil-teachers are taken into this training school at certain hours to "watch the chips fly." A workman is known by his chips. It is useless to say that the pupil-teachers are supplied with note book and pencil in order that they may be able to report to the principal how she did it or how she did not do it. According to the theory of physicians many *human beings* must be sacrificed, to say nothing of dogs, rabbits, and pigeons, in order that the experimenters, the future M. D.'s may perhaps cure somebody. No allusion is made to the homœopathist, he never *kills* any body. So with the pupil-teacher. He experiments on the minds of the children constituting his class—and since this playing teacher is taken by turns, and since there are young experimenters and old experimenters in the same class, it must necessarily follow that the older experimenters and perhaps the principal also, sit quietly by and witness most imperfect experiments. For example: The pupil-teacher in the development of mind spreads on a coat of memory when she should have administered allopathic doses of observation; she notices that the bump of combativeness of some future HENAN is developing too rapidly, and she applies the oil of birch in order to dwarf this unnatural growth, when she should have absorbed it by the frequent application of plasters of love with an occasional blister of moral suasion, and so on with blunders *ad infinitum ad nauseam.* The critics retire and the curtain falls.

You all admit that the minds of the children forming this training class are most perfectly unfolded, developed.

I can't leave this subject without telling a homely anecdote so peculiarly applicable: An admirer of ROBERT INGERSOLL who has not made a success in the government of his family by harsh means took the advice of the champion infidel and gave his hopeful son free access to his money drawer. The father left home to be absent a few days. On his return at a late hour at night, entering the hall, he stumbled over a bass drum, a shot gun, fishing tackle, and other indispensables to the American small boy, including a large, fierce dog,—all the purchases of this dutiful son. The dog at once fastened his teeth in the flesh of the irate father who screamed for assistance. The son appeared on the stairway exclaiming, "Stand it daddy, stand it nobly, It is just the making of the dog." We can say to the children constituting the practice school, and also to their parents, "we know it dwarfs the intellect and deadens the sensibilities, but stand it nobly, It is just the making of school teachers."

2. *Special work of Normal Schools.*

Normal-school work has been frequently criticised during the past three years, and in too many instances were there reasons therefor. So long as there exists such a diversity of opinion among normal-school principals and instructors as to their special work and the immediate results thereof, so long will there be just grounds for complaint.

As evidence of this conclusion I beg leave to offer the words of representative educators whose opinions have been kindly furnished since I came to this city.

In answer to this question, "What should be the special work of the normal school," Mr. D. F. De Wolf, of Ohio, says: "When a person is educated he may properly be taught to teach."

Mr. Soldan, of Missouri, says: "To educate teachers."

The following exhaustive opinion is from Mr. Jerome Allen, of New York:—

"The special work of a normal school should be the training of teachers in the science and art of teaching. The teaching of the subject-matter as in other schools, is no part of a true normal school. Pupils should be expected to know the special subjects usually taught in our schools when they enter a normal school. If they do not, the normal school should teach them, always under protest and always insisting that pupils must come to the prepared."

. Two things belong to a true normal school.

1. Thorough drill in the science of education.
2. Thorough drill in the actual work of teaching under experienced critic teachers until professional expertness is obtained.

Mr. Rounds, of Maine, says: "We can not agree as to the fundamental principles of education"; and Mr. Calkins, of New York, affirms that: "Teaching should be for the development of power"; Mr. Rickoff, of Ohio, says it should be this way; and Mr. Bell, of Indiana, that; Mr. Newell, of Maryland, says we should use the common branches as a seasoning; and Mr. Harris, of Connecticut, says the gentlemen used the term seasoning contempuously, and at once demolishes the new revision.

The whole truth is simply this: We are annually placing ourselves on record as a chronic set of professional grumblers.

3. *Course of study.*

As a class *normal schools* are doing little more than academies and colleges of the same grade. You can not say that the instruction given in normal schools in language, mathematics, history, etc., is superior to that given in colleges. You can not urge that there should be a different course of study when in point of fact the courses of study are almost identical. You can not aver that the method of instruction in normal schools is better than that of the college. The qualified professor of mathematics in a college presents his subject according to the best and most approved methods. Wherein do they differ? There is a greater dissimilarity in courses of study in many normal schools than there is between certain normal schools and certain colleges.

As an evidence of weakness in our special work, it is only necessary to cite the fact, that of the many normal schools in our country, *no two have the same course of study*, and no two, even in the same State, supported from the public coffer, adopt the same principles as the basis of professional education. In Michigan a committee of teachers recommended the following course of study as suitable for professional preparation for teachers:

ELEMENTARY COURSE.

1.	Elementary Principles of Education, . . .	20 weeks.
2.	School Organization, Government, School Laws, History of Education, Methods of Reading and Study, etc., ...	20 “
3.	Practice Teaching, ...	40 “
4.	Reading and Orthography, ...	10 “
5.	Arithmetic, ...	10 “
6.	English Grammar, ...	10 “
7.	Geography, ...	10 “
8.	History of United States, ...	5 “
9.	Vocal Music, ...	10 “
10.	Drawing, ...	10 “
11.	Penmanship, ...	5 “
12.	Algebra, ...	5 “
13.	Physiology, ...	5 “
14.	Objective Teaching Botany, ... Zoölogy, . . . Physics, ...	15 “

ADVANCED COURSE.

1.	Elementary Professional Work, . . .	5 weeks.
2.	Advanced Professional Work, . . .	35 “
3.	History of Education, School Government, Civil Government, etc., ...	20 “
4.	Practice Teaching, ...	40 “
5.	Arithmetic, ...	5 “
6.	Algebra, ...	5 “
7.	Geometry, Trigonometry, ...	10 “
8.	Geography, ...	5 “
9.	Physiology and Zoölogy, ...	5 “
10.	Botany, ...	5 “

11. Astronomy,	5	"
12. Geology,	5	"
13. Natural Philosophy and Laboratory Practice,	5	"
14. Chemistry and Laboratory Practice,	5	"
15. Rhetoric, Grammar, and Composition,	5	"
16. History and Literature,	10	"
17. Reading, etc..	5	"
18. Penmanship,	5	"
19. Drawing,	5	"
20. Vocal Music,	5	"

Is there any thing peculiar in this course of study? Does it materially differ from that of an academy or college? Is it like that of any normal school? It may be claimed that this course is a purely professional one. If so, I see nothing on the subject of mental philosophy, a branch so often found in a normal-school curriculum, yet one that receives but little or no attention. It may be urged that methods of teaching these various branches will best fit the candidate for his work. If so can it be maintained that the average mind can learn, in five weeks, the best methods of teaching history, algebra, geography, physiology, and others enumerated in this course? Can a person become an expert in teaching by spending a few weeks in studying methods of teaching?

It will be observed that in both the elementary and advanced courses, forty weeks are given to practice-teaching—being twice as much time as is assigned to any other subject in either course. If practice-teaching is so essential why not let those young men and women practice in the rural district school, in which capacity they would be compensated for their services? Giving so much importance to practice-teaching makes it smack of the saying that "practice makes perfect."

4. *Scholarship.*

It may be true that teaching is a science, and that the art of imparting instruction may be acquired from experienced educators, yet the basis of success lies in *scholarship.* It is a truism that one can not teach what he does not understand. Just how much knowledge of arithmetic or grammar a person should possess before attempting to teach the same, I am unable to determine. It is quite certain, however, the more thorough the knowledge of the subject the greater the ability to teach that subject.

Would I have the teacher to possess a smattering of everything? No. I should prefer to have a specialist, that is, preference would be given to one who knows everything of something, because in the approximation of knowing everything of something, he must have acquired some knowledge of everything. It is surely conceded that developed mind is the result of education—more properly the direct or immediate result of the pursuit of knowledge.

There are those among our profession who believe that the mind, whatever that is, is unfolded by a given process, that just so much study of mathematics, of language, of history, and of science, together with other subjects and their subdivisions, is essential to its most complete development. There are those also who believe that certain mental processes should *follow each other in* a fixed order. If this be true (and I take it for granted that it is, because many of our leading educators have marked out their work accordingly from their respective stand-points, no two, however, presenting the same succession of topics,)—I say if this be true, no man has ever been educated. Our WEBSTERS and CALHOUNS and CLAYS and BRYANTS were indebted to no one for their great mental powers. They were not the product of brain-building theorists—they were both creator and creature so far as the development of the mind is concerned.

No one doubts that mental development is the result of application of the brain, and that the greater the mind of the teacher the greater the ability to instruct others.

How complete this development, or in other words how much ability or scholarship a teacher should possess before assuming the teaching of others, is a delicate and unanswerable proposition. Above all other qualifications fitting the teacher for his responsible work is a scholarship which should embrace at least a thorough knowledge of the common, public-school course of study.

From this statement I reach the conclusion that a large majority of those who are now holding certificates from the proper authorities granting them the right to teach, are not qualified for the work which they are legally authorized to perform. So far as my own State is concerned, and I think it to be true of any State in the union, I most emphatically assert that it would be better for our public schools to go without teachers than to place them in the hands of sixty per cent of those who are now holding certificates of authority to teach.

Who is there in this assembly who would not prefer to keep his child at home and out of school until it is twelve years old, and then place it in the hands of a thoroughly-competent teacher for three years than to have it manipulated even by the average teacher for nine years?

In all candor I ask which of two children at the age of fifteen under those circumstances, would have the best-developed mind? Again. If it be true that the brain keeps a complete record of all impressions made on it, whether they be good or bad, perfect or imperfect, will not the mind be dwarfed in the hands of the average teacher rather than expanded? Will it not become a mass of incongruities rather than a power able to appreciate and enjoy the intricacies and delicacies of nature? Will it not lead the possessor into the lower and grosser walks of life rather than among those who are lovers of the true, the beautiful, and the good?

5. *Methods.*

There are some normal schools in which methods of teaching and government constitute the professional feature, and, by the way, is it not strange that after several years' experience in normal-school work we are divided as to what constitutes a professional course of instruction?

It is claimed by men of ability and reputation that there should be a separate professional course of instruction for those who have graduated from the usual collegiate course, and by others that professional and academic instruction should go hand in hand, and still different views are entertained by others of like reputation.

Methods of teaching are no small part of the usual professional course. Is not this a frank admission that those graduates have been improperly taught in the several branches in which they are now to have a course in methods. Does not Prof. A., who is a thorough mathematician, use the best-known methods in teaching this subject? He certainly uses the most-approved methods or he would not long retain his position. Can not this professional normal expert whose field of labor embraces methods in everything, and whose ability in mathematics is but ordinary, far below Prof. A's, give those graduates something new in the unfolding of that subject?

Having acquired great proficiency in arithmetic, grammar, geography, or as pupils of teachers of pronounced scholarship, and who are known to use the best methods of instruction, is it not absurd that they should take up and prosecute a separate professional course in methods? Is not the same true in methods of government? I tell you, fellow-teachers, there is something wrong, and we should frankly admit that much of this so-called professional work is shoddy.

All teachers whether found in charge of a district school, in the college or university, should employ the best-known methods in imparting instruction in each and every branch taught by them. Such methods are found, learned only at the feet of the most profound scholar as teacher of those several subjects. They are not found at the hands of the professional normal school expert unless he be a person of broad, scholarly attainments.

6. *Character.*

Some one has said that no person without a settled character is fit to be a teacher. How is it possible for boys and girls to have settled habits? and we must admit that a large majority of our schools are in the hands of minors. I would not have our happy, rollicking boys and girls assume the airs of men and women. Let them be just what they are until nature develops them into manhood and womanhood. But I would not make teachers of them until they are old enough to impress their manly or womanly bearing upon those in their charge.

It is said that the striking features in Dr. ARNOLD's character—and we should all aspire to be ARNOLDS—were fearlessness, independence, earnestness, in short, a christian devotion to duty.

With a smattering of books, mere boys andgirls assume the position of teacher—the education and training of children little younger than they—and are employed by persons who would under no circumstances trust them with any other important business. This is worse than the blind leading the blind. Since character is an essential to success, it follows that boys and girls should not occupy the position of teacher. I shall not attempt to draw the line as to age, but it is certainly orthodox that youth should not attempt to solve a problem which is most difficult, and in a measure unsolved by their fathers and mothers, by teachers of great and long experience.

7. *Faith in the work.*

Many attacks made upon the public school system are of legitimate origin. We deserve to be attacked because we are not doing what should reasonably be expected of us. The faith that ninety per cent of our teachers possess is not of the character that would remove mountains. I frankly confess that from the present standpoint, I accomplished little or nothing during my first two or three years' experience as teacher, which was in a rural district. I made a success in but one particular, and that was in getting my wages at the close of each term. It was hard on those children, but in a financial point of view it was just the making of their teacher.

Now I can but judge other young teachers by myself, when I say that it were better that the schools go without teachers.

We have but little or no faith in our work, and this proposition may be applied to many of us who have had years of experience. Place a plank in the hands of a carpenter and ask him to make you a brace or a bracket and he will do it. Take from the quarry a rough ashler and put it in the hands of a mason, and ask of him a polished cube and it will be brought forth. Provide your wife with a cup of flour and in an incredibly short time she will offer you a tempting biscuit.

It is not so with the teacher. Let a parent hand over to your care and keeping a hopeful six-year-old and ask of you a man, and what will you do? Have you been so thoroughly trained in some normal school that you are able to say to your employer, "I shall make a perfect man of this boy"?

You can not say so though you have fifteen years in which to experiment.

The young man enters the carpenter's shop as an apprentice, and after a course of training he presents himself as a mechanic, and as such is a success. It is not so with graduates of a normal school. They can be trained only in a most limited sense of the term, and, therefore, they can truthfully say that they will try to make something of the material placed in their charge. They cannot say to their patrons that success is certain, and as a consequence they do a great deal of imperfect, yes, very poor work.

As further evidence of want of faith it is of most common occurrence to hear leading educators charging somebody, or some school, or some State, with cramming, with humbuggery, with bigotry, without designating the person, the school or the State. Doubtless some of you have heard something of this nature since your assembling here.

Only last evening an unwelcome sentence intruded itself into my ears. Said a reputable teacher of one of equal reputation, "He is a charlatan, a quack." This was not said of a normal school man. *They* are never called quacks. An anti-normal school man assigns him to a lower species of the *genus preceptor*, by calling him "a machine for making pedagogues." This drives me to the conclusion that properly speaking we have two kinds of teachers—"machine made" and "hand made," some "made to order" and some are born, strange to say.

There is more or less antagonism, and it is useless to deny it, between colleges and normal schools, and it is chiefly because the one has but little *faith in the* work of the other. In this paper I have presented facts as they now exist rather than my own opinion. The subject assigned me is identical with that assigned another except the word country is used in place of the word city.

I entertained the opinion that a teacher who is a success in the city would be a success in the country and the reverse, and that there is no specific difference in the general preparation for either. Taking it for granted that the person designated to prepare a paper on the normal training for city teachers will treat his subject, sticking to the text, I took the liberty, to a certain extent, of discussing another for the purpose of provoking discussion.

I have torn the gaping wound afresh, with the view of having the caustic applied by others in order that it may be thoroughly healed.

There should be a friendly relation existing among all classes of teachers. We should not become assassins and stab each other in the back. Let us lay down proposition after proposition in the form of resolution and after a thorough discussion of the same, reach a final conclusion by a direct vote—a conclusion that should not only bind us, but one that would give satisfaction to our hearers and the country at large, by the use of the printed page.

High schools and colleges and universities are secondary institutions. The public free school is the great first cause, the people's college the salvation of our country. Let it be distinctly understood that I consider the normal school a part of, and the future shining light and fountain head of the grand, public, free school system.

Let us join our hands knowing no north, no south, no east, no west, and ever battle for the free education of the whole people regardless of race, caste or color.

In the charming and unequaled eloquence of the motto of the grand old commonwealth of Kentucky, the first born of the Sunny South, *United we stand, Divided we fall.*

TOBIAS WITMER, of Buffalo, N. Y., spoke as follows:

Mr. President,—

Professor HALDEMAN has traced the word "Normal" to *know*, or *knowledge*, not, however, ignoring the idea of *rule*. To *know the rule* is truly the conception of a Normal School. What are rules worth if they are not known? And what is knowledge worth if it has no good rule to guide it? This, it seems to me, embodies the whole Normal School question. A great many good people believe that the normal condition of man was to know God and keep His Commandments. As long as he did these two things he was happy in Eden. But he learned to *know* a little too much, and in consequence became miserable. Knowledge of the right kind, and just enough of it, is what may properly be termed normal happiness. Now in my long experience as a teacher, and a father of a family, I have observed that the pursuit of knowledge and true happiness may be conducted and found on the same path of human life. For instance, take a little child that has come into the world in answer to the design of only pure and virtuous spirits, its normal condition is very favorable for a candidate to the Normal School. If that normal condition is properly improved, by simply using the ordinary appliances now at hand in the country of Normal Schools, will not knowledge and the pursuit of happiness be woven into that human life, warp and woof? Now the prime object of every sane person is the pursuit of happiness, and this cannot be accomplished without a knowledge of the good; that kind of good which we call wisdom. A Normal School is a temple of wisdom. There are many kinds of knowledge, but only one kind of wisdom; and a school where wisdom is not inculcated, nor wisely taught, can hardly be termed a Normal School.

Now the trouble with all schools where there *is* trouble, is just this: they teach a smattering of too many things, from too many books, and nothing to perfection. A teacher should be content with teaching one thing or group of facts at a time, and should teach that perfectly, before he takes up another group. The wise teacher is the one who remembers just how he felt when he was a little child, and how he felt when he grew a little older, and he must *know* just how to adapt his instruction to the *capacity* of the children in each of the stages of their development; and this constitutes the true Normal Teacher. He must be just as much at home, and just as ready to interest the little five, six or seven year olds as he is to teach the graduating class. Blessed is the man who can enter into the *spirit* of teaching little children.

The *Coming Normal School* will have a teacher who can command, and will receive the highest salary in the institution for teaching the *primary classes*. And if that professor be a lady, pay her her wages. This professor has his text-books in his study, carefully arranged, and from various authors on the same subjects. But he seldom takes one of them into the school-room. He gets his subject for the recitation well digested, and ready, *into his head*,—the teacher should be the text-book for the pupils,—and the children then get instruction direct from the living spirit, instead of dead letters. And his instruction is largely from objects themselves, or from pictures of the objects, in place of having the scholar "commit to memory" words that are printed in books.

Happy is the school where the teacher succeeds in interesting the pupils without books as well as with them.

With books we put old heads on youthful shoulders. Without books the live teacher develops,—draws out—*educates* the human soul in beautiful harmony with itself and its sublime nature. Take nature for your guide, and books in which to record the monuments of life. I do not discard books, but like lager beer, too much of a good thing will destroy a whole race. Rather resort to the pure crystal spring, gushing from Nature's own pure bosom, to quench your literary thirst. Beer was invented by man, and so were text-books. But Nature is better than either. Give us good, pure minded children, and we will put them under good normal teachers, and their normal condition will be infinitely improved. They will *know* the *rule*, and will "be able to teach others also," and in due time they will give you back pure minded fathers and mothers, and *families too*, and a glorious nation will arise to bless the earth. The Normal School is formative, rather than reformative. One term of good *formation* is better than two terms of *reformation.*

Mr. WARE, of the Atlanta University, spoke in favor of free schools.

Mr. DEWOLF, State School Commissioner of Ohio, spoke on the subject of Normal Schools. He said that he would regret to see the teachers of Ohio replaced by normal-school graduates. "At the same time Ohio is not without the normal-school spirit. Teachers must be instructed in the sciences, and teach the science of the mind. It can be better taught in the old-established schools than in any other way. But there is no opposition to a right spirit of normal schools, in Ohio."

Commissioner ORR, of Georgia, said, "I am an older man than many members of this association, but I am young in this matter. The Atlanta University, a colored institution, is the only college in the State that makes any pretentions to a normal school. My subordinates tell me that the teachers who are turned out from the normal schools are far superior to any other. We must look away from the colleges for teachers. I feel very deeply the importance of having in the State a normal school for white teachers, and a normal school for colored teachers."

Other gentlemen spoke on the matter, after which the meeting adjourned.

ELEMENTARY DEPARTMENT.

TUESDAY JULY 19, 1881.

Mr. W. D. Henkle stated that the President and Secretary were absent, and on his motion, Mr. John M. Bloss, of Indiana, was elected President, and Mr. S. G. Brinkley, of Georgia, Secretary *pro tem.*

A letter from the President, Mr. Tousley, was read. His absence was caused by sickness.

Hon. J. J. Burns, of Ohio, read the following paper:

THE PHILOSOPHY OF ILLUSTRATION.

The philosophy of bread-making would comprise, I suppose, a recognition of the prime fact, that man must eat; a setting forth of the virtues of bread as a supply of his bodily wants; a designation of the soil best fitted for producing the grain; an indication of the best method of grinding; then of moistening the flour, and of leavening and kneading the lump, and of promoting other chemical changes which must take place; and finally and incidentally a hint that man must not live by bread alone.

The third definition in Webster of the word illustrate is, "To make clear, intelligible, or apprehensible; to elucidate; to explain; to exemplify; especially by means of figures, comparisons, examples and the like;" and "Philosophy, in actual usage, is the knowledge of phenomena as explained by and resolved into causes and reasons, powers and laws."

Hence, a paper with the heading above, may claim for its province some part of the art of elucidating or throwing light into dark places—the universality of the practice, the purposes of illustration, the sources whence drawn, the qualities of a good illustration, a caution as to improper uses, the importance to every teacher of a faculty of illustration with the possibility of its development, and a glance at the example of the great teacher.

The field is unbroken ground, at least to my plow, and I ask permission, when drawing near a root or a heavy set stone, to bear down upon the handles.

If examples seem sown with two free a hand, my excuse is the topic itself. To talk of bathing makes one long to plunge into the stream. Discussing dainty dishes quickens one's appetite. This is nature. May I then not illustrate my illustration?

The outline just presented infers that the act denoted by the term illustration is universal. We can conceive of an intellect's growing in strength and knowledge without its aid, but the trial has not been made.

Wherever man sees wills and reasons he illustrates. It seems to be a fundamental act of mind; to have no limits of territory, but those of man's habitation, nor of time but man's existence.

The faculty of speech is an essential part of man's being, and the words themselves, of which this speech is composed are often pure illustrations which sparkle among the literal verbiage like crystals in the gray dull sand.

Science has a threshold; hope has wings like a bird, and is itself an anchor; misfortune has dregs like a cup; life has a morning, a noon and a night, as a day, and its sky can be blotted out by clouds; certain sharp, biting pains are called remorse; humanity, like wheat, ripens for the harvests, and like wheat again suffers tribulation; a saying, like a door-knob, is trite, and use brightens both; a verse of poetry, like a wall, can be scanned; an action and an angle may be both right; a human soul and a number in arithmetic may each retain its integrity; a man's glory and his barn both culminate, his body and his country have each a capital, his garden and his native mountain each a foot.

In the phenomenon of sight the brain does not stop to doubt that it sees the very object itself, while the evident truth is, that the eye is but a portal through which the world is ever "illustrating" itself—making its myriad parts, one by one, "apprehensible." For the optic nerve would have a task, whose magnitude would put my power of illustration to open shame, if it had to seize upon a mountain, a planet, a sunset, a castle or even a violet.

The mind not only detects resemblances between something already in possession and a new subject brought within range, but it takes pleasure in the discovery. Now the thing before known is the illustration, the lamp which throws light upon the thing to be mentally grasped.

For examples, the fragility of an empty shell, the ascent of vapor from a vessel on the fire, a shallow pond where a thin sheet of sparkling water overlies a stratum of foul mud, a long used piece of money, and an old log cabin are things known.

Using the first as an emblem, RUSKIN teaches that the "temper by which right taste is formed clasps all that it loves so hard that it crushes it if it be hollow." Dr. YOUNG points to the second and third for these lessons;—"A heart boiling with violent passions, will always send up infatuating fumes to the head," and:—"When we dip too deep into pleasure we always stir a sediment which renders it impure and noxious." Mill draws aid from the fourth:—"Words, however well constructed originally, are always tending like coins to have their inscription worn off by passing from hand to hand," and the poet WALLER added at least two lines, which will not die, to English literature, when he looked upon the last and homeliest, and sang:

> "The soul's dark cottage battered and decayed,"
> "Lets in new light through chinks that time has made."

Some grand truth lies out of sight like the sun below our horizon. His rays shoot above our heads. Illustrations are the little mirrors which held aloft into the solar beam bend it down, and the eye catches the glory of the sun, although the dark earth swells up between.

An apt illustration gives pleasure not only by adding something new but by calling to the attention—displaying upon the counter if you please

—goods now on the shelves; and this pleasure is the warmth which welds, the excitation of the salivary gland which prepares the food for digestion and assimilation, the cement which binds the new laid brick into the wall, the adjustment of the telescope to a wider range.

To assert the agreeable exercise of a faculty in making fresh conquests is to give a part of its philosophy. The infinite variety of material, and the infinite needs of the human soul, are other parts.

While the eye is a camera, the auditory nerve is a telephone wire; the entire nervous system is a fire alarm apparatus with sundry attachments; the man feeds and is strong, an engine feeds with like result; the caterpillar sleeps, and wakes a more glorious body, and Revelation teaches that man has another life within.

Objects which are not apparent to man's senses but yet have an intimate relation to his inner nature, have in all stages of his history been symbolized, or illustrated, or made apprehensible to his senses.

In accordance with this principle idols have been set up on heathen altars. The old Jewish theocracy abounded in examples, and Christianity is not without them. Water and wine have a meaning of deep import. The church spire points its finger upward, and the cross of red flannel sewed to the outer garment of the follower of PETER the Hermit was still the dear remembrance of his dying Lord:

> For whose sweet sake that glorious badge he wore,
> And dead, as living, ever him adored.

And with that same symbol printed on their hearts Christians still, in a far truer sense; "bear the cross."

Illustrations based upon mere fancied resemblance are sometimes a potent weapon in false reasoning. This does not prove that man should not illustrate, but that he should beware of building a philosophical structure on verbal adornments.

"You do not preach to the acorn," says Mr. FROUDE, "that it is its duty to become a large tree. You place your acorn in favorable soil where it can have light and air, and be sheltered from the wind; you remove superfluous branches; you train the strength into the leading shoots. The acorn will then become as fine a tree as it has vital force to become." This is given as an expression of some things taught in other words in BUCKLE's Science of History.

Is it wise doctrine? Does it go to show that you must not point out the noblest possible example to a pupil? And, in fact, are oaks brought to their glory and perfection in that way at all?

Of course the faculty of illustration may be put to an unfair use. So does imagination often body forth the forms of things better left hidden in its shadowy depths. So does memory retain much chaff among the grain; often instead of the grain. So reason sometimes leaves the logical track, and seems to prove the false and disprove the true.

The thing oftenest illustrated, perhaps, is the human face, which is itself an illustration of the soul within. Portraits proper and statuary give us some comparatively short-lived symbols, but literature, by the *use of familiar* similes and metaphors paints the race.

Smiles are sunshine, frowns are clouds, angry glances are lightnings, tears are rain showers, gray hairs are snow upon the mountain summit. HAWTHORNE describes a smile as "broad and sultry;" and says "the judge's smile seemed to operate on her acerbity of heart, like sunshine upon vinegar, making it ten times sourer than ever." And the same amiable person, on another occasion, says, "No, No, Miss PHOEBE, in a voice as deep as a thunder growl and with a frown as black as the cloud whence it issued."

Here I note, out of its place, one use of illustration—to magnify, some call it exaggerate, and some have yet a shorter name, so as to make a very small object "apprehensible," as my definition has it.

Although I have said that the exercise of this faculty is universal, allow me to say here that it most abounds in literature, and is often placed there for purposes alien to the motive with which the judge in instructing a jury, or the teacher in guiding a class uses them.

Summarizing the purposes for which men illustrate, those that occur to me are:—

1. To give material expression to the immaterial. The thought under discussion for example relates to the mental processes. The illustrator points to some nearly analagous natural process. It is an idea of number sought to be developed in the mind of a little child. The sticks, grains, or coins which he can see and handle come into use. It is a locus which a larger child is struggling to conceive from the author's definition. A crayon in the teacher's hand draws it on the board, and, at the same time points it on the boy's reason.

Coming under the same head are the illustrations used when we but speak of strengthening memory as though it were a muscle, cultivating taste as though it were a flower garden, and training judgment as though it were a setter or pointer.

Dr. McCOSH calls the will the rudder of the mind, of course the whole spiritual nature is a ship and life is a voyage.

2. To give the mind a breathing place in its struggle from things known to things unknown—to clinch a nail already in, before driving another. Some abstruse subject is under discussion—the paper on causation read before this body last summer is a good example—and by a skillful use of apt illustration a reader is carried along to the conclusion who might otherwise faint by the way; and this, though the simple statements would, one by one, be apprehended, without the aid of illustration upon sufficient reflection. The need of such material side lights is the more urgent when but a glance is given, as in public reading or speaking.

3. To afford several different views, stereoscope like, of the same object, and thus give a fuller image. The thought may be, that there is no real excellence in literature without its price paid. Flowers in a garden are beautiful, but they must have root and stalk and cultivation. The most heavenly looking thing in the floral kingdon which I ever beheld was a night-blooming cereus. The owner was in a state of mind over which was no trail of the serpent. But she had cared for that plant during seven long years.

Changing the figure, to borrow from a distinguished teacher of the west:—"It is not with literature as with country milk; the cream is at the bottom of the pan."

4. To condense a whole argument into a phrase. BRYANT illustrates the absurdity of the critics in certain cases, where they compare one poet with another, by likening it to comparison between a river, and a mountain. DR. JOHNSON said that no person ever wished Paradise Lost longer, and CHARLES LAMB'S comment is:—"Nor the moon rounder."

5. To adorn discourse and hence give memory something to which it delights to return, without which returning, much reading is busy idleness. In proving the proposition that our capacity is suited to our state and concerns, LOCKE declares "that men may find sufficient to busy their heads and employ their hands with variety, delight, and satisfaction, if they will not throw away the blessings their hands are filled with because some things are out of reach. It will be no excuse to an idle and untoward servant who would not attend his business by candle-light, to plead that he had not broad sunshine." The candle is sufficient for our purposes.

A writer has declared that high truths, "like high mountains, are apt to veil themselves in clouds." Mountains are not only barriers between races of animals, and species of plants, and river basins, but they are regarded as great uplifters of humanity. Indeed some wise person has affirmed that prairies can not grow great men at all. This doctrine is out of my way just now, but I wish to declare that illustrations seem to take their rise in the heights as naturally as streams of water. GOLDSMITH'S "tall cliff that lifts its awful form" with clouds around its breast, and eternal sunshine on its head will occur to every mind; and BYRON'S "throned eternity in icy halls of cold sublimity."

CARLYLE says of BURNS:—"Tears lie in him, and consuming fire as lightning lurks in the drops of a Summer cloud." This suggests an illustration which we do not admit the truth of at all. An English critic who does not admire WASHINGTON IRVING, says that his "flashes of fun are spread over the pages of dullness, which enhance them just as a dark night is propitious to fireworks, or the atmosphere of the House of Commons to a joke."

Illustrations for the sake of adornment are infinite in number and of a thousand shades.

The sources from which illustrations are drawn is the next land-mark in the course I had mapped out. All the springs from which flow these countless streams, will hardly occur to me, but I hope to list the main ones. Nature, among the others, is like the moon among stars. Things animate and inanimate, ocean, sky, air, earth, mountains, valleys, trees, flowers, snow, rain, darting meteors, lightning, and thunder, the cataract's dash, the floods clapping their hands, the plaintive song of the rill, the lion's roar, the insect's hum, the cedar of Lebanon, and the wee, modest daisy, or primrose by the river's brim, all are but part of the tributaries to this giant stream. I give no examples here under this head, for they are found thick throughout the paper. The works of man have the second place; in fact about all the remaining sources might be classed under this general head. It includes the structures, which man, as the human builder, has erected; the scientific and moral truths which he, as a discoverer, has brought to light; the products of his inner life, as language and literature, for this last pays back to nature some of the vast wealth which it has borrowed. Creations of the poet's fancy have come to dwell as real presences with men. Open the door, here and there come trooping in, gods and goddesses, heroes and heroines, Æneas with his *pater* Anchises, Christian and Crusoe, and Dominie Sampson, and Prospero, and Hamlet, Don Quixote, with Sancho, and so on till the eye is weary.

Carlyle says that Burns's songs "fashioned themselves in the medium of Harmony as Venus arose from the bottom of the sea." I suppose that few of us possess a clear idea of just how Venus performed that aquatic feat. Yet I think no doubt the illustration suggests the depth of the medium, the spontaneity of the action, and the pure spirit nature, in each case, of the thing brought into sensible existence. Hugh Miller speaks of associations touching a ghost-story buried beneath a quarter of a century;—"as Ithuriel touched the toad;"—drawing upon Milton for his illustration,

> "Touched lightly: for no falsehood can endure
> Touch of celestrial brightness, but returns
> Of force to its own likeness."

Ritso, a noted English writer on the science of law, speaking of the labors and the honors of his profession, draws an illustration from the source now under discussion, which sets in bright light the view he would present to the reader's eye: "The laurels which grow within these precincts are to be gathered with no vulgar hands; they resist the unhallowed grasp, like the golden branch with which the hero of Æneid threw open the adamantine gates that led to Elysium." Illustrations for popular illumination are drawn from the sensible appearance of things, rather than from what the dissecting knife of science may have laid bare concerning them. To the universal eye the sun does set, and the day does end, and the rain-bow is painted upon the clouds, and the moon is the largest lamp in the nightly sky. In speaking of the fate of Swift, his intellect, the most brilliant of the century, blotted into idiocy while he was still out of his grave. It would not be out of place for a writer to point for an illustration to the sun descending through the mists and fogs which put out his fires, while he still lingers above the verge of the horizon. So Byron has given a glowing image in:

> "Parting day,
> Dies like the dolphin, whom each pang imbues
> With a new color as it gasps away,
> The last still loveliest, till—tis gone—and all is gray."

IV. The qualities of a good illustration is my fourth head. First. It is luminous so as to throw a clear, bright ray upon the object to be illustrated. This ray is not sent through a thick stratum of words. Especially where it is to aid the reason, there should be left on the mind an impression not of the illustration, but of the truth illustrated. Otherwise the case is like that of the simple soul who was so dazzled with the telescope and its mountings, that he failed to take a look at Saturn's rings or Jupiter's moons. We hear people say, "That was a beautiful illustration, and so appropriate." "Well, what was the speaker attempting to prove?" "Why, I declare, the point has slipped my memory just now, but the illustration was beautiful." There is no sin necessarily imputed to the first party in this little dialogue. Possibly the discourse was a dreary affair, and the illustration was all that was worth recollecting. Still it is true doctrine, that the object lighted up by an illustration should be made so luminous that we ignore the source of the light. We look at the great full moon and forget that the sun is making her visible. This example alluding to light suggests a passage in COLERIDGE which is a model illustration: "Human experience, like the stern lights of a ship at sea, too often illuminates only the path we have passed over." No matter how far from the sea one's life has been spent, this is a clear illustration of the thought.

Second. Perhaps the first quality named includes the second, yet I name aptness to the calling or mode of life of those who hear or read; though this is often carried to excess, moderation should rule here. It savors of something I can not name just now, to use engines too freely in addressing railroad men upon general topics; seed-time and harvest when farmers are the audience, and the various targets at which the young idea is trained to shoot, when teachers are expected to listen—"To suffer and be strong."

However the propriety or impropriety, as in so many other things, will depend upon the manner of doing it, and the truth stands that to accomplish its logical end an illustration must be drawn from things familiar. Its logical end I say, for if one illustrates for the sake of illustration, he may act upon a different principle. He may seek to dignify a homely and already familiar truth by showing its resemblance to some object which has a touch of grandeur or sublimity about it—possibly on account of the medium, as objects are often more impressive seen through a fog; or while the audience may not have any knowledge of the occult matter referred to, the modest speaker may be willing to have it known that he has. In this case the illustration is rather an inumbration with a magnified spectre of the speaker in the background. But under the head of familiar materials, allow a practical example. A teacher may be endeavoring to convince his pupils of the value of composition exercises. The dry-goods store on the corner will furnish a pertinent illustration; namely the taking of an inventory of stock so he may really know what he has on hand. The iron furnace will supply another picture of the work done when one sits down to compose—to melt pure iron from the crude ore. The teacher may cite Dr. YOUNG and apply an often-used illustration in favor of speech, oral or written—the ventilation of our intellectual fires.

In search of arguments to show the importance of a classifying of knowledge the instructor can get some aid from DOMINIE SAMPSON'S mental stock which SCOTT compared to the "Magazine of a pawnbroker's shop stowed with every description, but so cumbrously piled together that the owner can never lay his hands upon any one article at the moment he has occasion for it."

Quaintness is sometimes a merit in an illustration, serving as a burr to hold the truth lastingly in mind. What a sermon on the blessed habit of looking upon the bright side of things is found in the story of the two pitchers that hung in the well! While one groans out: "I never come up full but I must go down empty." The other cheerily replies: "Why, I never go down empty but I come up full."

JOHN SHELDON said: "Be sure you keep to truth that's settled, then you may flourish upon your various lections. Do as if you were going over a bridge. Hold fast by the rail and then you may dance here and there if you please."

I admire this from BRYANT: "The foot-prints of POPE are not those of a giant, but he has left them scattered all over the field of our literature."

Beauty, so as to adorn the expression, is the last good quality I shall name. A path bordered with flowers invites you to linger and enjoy, and return by the same way. Not so a ragged lane.

Summing, an illustration should have as many as possible of these qualities—aptness or truth, brevity, familiarity, quaintness, beauty.

Some cautions worth noting:

1. This habit may be indulged in to excess. A truth now bright and clear does not need illustration more than a lily needs painting, or a swan washing.

2. Where one illustration is of service, two may fail. The half is often more than the whole. This must be what the poet meant when he warned us that,

> "Examples may be heaped until they hide
> The rules that they were made to render plain."

3. They may be too highly colored, like SWIFT's "coaches over-finely painted and gilt, so that gazers have so dazzled their eyes as neither to regard or consider the person or the parts of the owner within."

4. The picture may be a monstrosity. JUSTIN MCCARTHY, in setting before his readers the large extent of HERBERT SPENCER's intellectual domain, or at any rate of the boundaries thereof, writes: "Mr. H. SPENCER may be said to have taken the sphere of the naturalist and the spheres of the metaphysician and psychologist, and drawn a circle round, embracing and enfolding them all and adopting them as his province." Now, a circle embracing three spheres would, if I may be allowed the figure, have its arms full.

5. Light does not always guide one's footsteps. I have sometimes found it difficult to keep my path on a dark night, owing to a glare in my eyes; and illustrations come at such an angle as to shine into the eyes of the mental wayfarer.

My fears strongly hint that my paper should have begun at this point, leaving undisturbed the ground now scored over, and I proceed to consider briefly, Illustration as a source of power in the school-room.

All persons concede, in theory at least, that mere hearing lessons is not teaching; that truth is to be presented in such a way that it will be accepted and digested by minds which vary as much in their power as the faces of their owners do in their expression; that these minds must have their faculties stimulated, *viresque acquirant eundo;* that education is a thing of heart, and life, and habit, and affection, and will, as well as of reason and memory and generalization.

It was no part of my plan to treat of Illustrative Teaching strictly, though some cruel critic may illustrate this statement by a heartless allusion to HAMLET with HAMLET left out.

By logical argument of our ablest leaders and by actual experiment in a thousand schools, its merits as a method of instruction have been established. It proves by trial the facts of physics. It presents to the senses the fundamental truths of geography and astronomy and physiology. It points its finger to specimen paragraphs in Nature's own hand-writing quoted from the Earth's Genesis.

Bul it is the faculty of illustration in the teacher, that I have in mind; and I am using the term which denotes the products of that faculty in a narrower sense than when it includes examples in grammar or arithmetic.

Illustrations proper are something brought from *without*—some *other* thing, and not one of a class, adduced to aid the mind to grasp the conception of the class.

A teacher wishes his pupils to form an idea of the Earth's shape. They are told it is a ball, and they think of the ball which enlivens their recess and are *instructed.* Attention is then turned to a larger ball, with pictures of the great bodies of land and of water upon it, that is to a geographical globe, the less cumbered with mountings the better, and not marked over with a network of imaginary lines. A clay earth of their own make will serve a good purpose, with a wire at hand to pierce it and give it an axis; and while it turns thereon, if they will allow some central object to *be* the sun, the phenomena of day and night and the seasons may be *illustrated,* the process passing slowly from the known to the less known.

Dull indeed must that teacher be who does not read lessons in physical geography in the drops gemming the surface of a pitcher of cold water, in the beaded wall of the school-room when the temperature of the air has suddenly changed frm cold to warm, and in a roof whose northern slope is covered with a heavy coat of snow while its southern half is in places melted bare, with growing icicles fringing its eave, or dropping one by one upon the ground, as the lower end of a glacier born in the hights above drops icebergs into the ocean.

In the teaching of arithmetic, illustration may be the school-master's ready servant.

The sticks, beans or coins used in developing the idea of *number* are illustrations under my definition, for they are not numbers themselves. We err when we keep these aids in the hands of the children too long. The tin-rattle period gives way to that of toy-drums, and it is followed by that of flute or piano. We err again when we think a child is abstracting —is conceiving the idea of number, pure and simple when he talks of "ten units" any more than when he says "ten beans.". I never saw a ghost, but I believe that the sum of one ghost and two ghosts is three *ghosts.*

We err farther along sometimes when we come to certain *wooden* illustrations of square and cube root, unless it is the *name* we are illustrating and not the process. I do not doubt that the *blocks* may be so used as to aid in the comprehension of the arithmetical process, but it is my opinion that, usually, the illustration itself is the thing impressed on the mind. Another peculiar case of distorted illustration comes to my mind right here. I have asked the question at institutes, "What is the first image called into your minds when you hear the word Ohio?" The map on the wall, continually before the eye is responsible for the answer—that the *first Ohio* which appears stands on its southern edge, with Lake Erie vertically and threateningly over it. The map, in some features, has become the State; the symbol, the thing symbolized.

I once heard a minister conducting a recitation of some private pupils in Latin. A youth had committed the not uncommon sin of parsing an adjective as of the feminine gender whose noun was masculine, when he was saluted by a query which must have shown him his blunder in a pretty clear light: "What are you putting a sun bonnet on that boy for?"

There is much saying of words without knowledge, in the matter of signs in algebra and their changes, and about the "*conditions*" of problems. Into these shady places bright illustrations should be thrown.

The assertion, that a hot-house is a trap to catch sunbeams, is an illustration for which I heartily thanked its many authors. I hope that Science has not yet proved that it is not so.

In both Literature and Nature, that is at second hand and at first hand, the teacher may find unfailing sources of illustration, not only for daily use before his class but for the vivifying of his notions in regard to his profession and of the grand topic of popular education. His views upon Language must certainly be enlarged if he duly ponders Sir W. HAMILTON's illustrations which I find quoted by Dr. McCOSH:—"Words are the *fortresses* of *thought*. They enable us to *realize* our *dominion* over what we have already *overrun* in *thought*." And, again, alluding to tunneling through a sand-bank:—"Now, language is to the mind precisely what the arch is to the tunnel."

MACAULAY with his unexampled power of illustration declares that "the highest intellects, like the tops of mountains, are the first to catch and reflect the dawn," and EMERSON, in the Fortune of the Republic, calls attention to a "rule that holds in economics as well as in hydraulics that you must have a source higher than your tap."

NEWTON's illustration of the vastness of the field of knowledge is common property.

Happy is the teacher who sees in the fruit-grower's nursery and the common garden, places fertile in illustrations. Where fruits are not cultivated weeds *will* grow. Nature would rather raise these, and many of her sons in sowing *oats* prefer the *wild* kind. Trees in the nursery are only preparing for transplanting; and their *after-growth*, where the wind blows more rudely, and the frosts bite fiercer, and enemies are more numerous, and food is to be wrested from a more obdurate soil is the *measure* of the nurseryman's *success*.

"The spacious firmament on high,
With all the blue ethereal sky,
And spangled heavens—a shining frame,
Their great Original proclaim."

One may view the sunrise simply as a matter of course, a thing which happens, seen or unseen, every day. Or,

"When nature and man awake to fresh desire,
And the day is blooming like a rose of fire,"

his worship uttered or unexpressed may be

"When dost thou seem more glorious, GOD of power,
Than in the morn's great resurrection hour?
LORD thou art great!

Who can paint a sunset that miniatures of the beauties of Heaven? Painters and poets have tried it, and will try it.

And that imperceptible fading of day into night. BYRON has a beautiful description:

"Each flower the dews have lightly wet,
And in the sky the stars are met,
And on the wave is deeper blue,
And on the leaf a browner hue,
And in the heaven that clear obscure,
So softly dark and darkly pure,
Which follows the decline of day,
As twilight melts beneath the moon away."

And if, just at this breathing moment on the bridge of time, the full moon should be coming above the eastern horizon, there is a spectacle, which, if it appeared but once in a half century, old men would pray that their lives might be spared to see it again. How many persons having eyes see not?

This loving, patient study of nature as a store-house of illustrations, and of the mental and moral powers as the objects to be illuminated, is an exalted culture of the teacher's own emotional and esthetic nature which will be seed sown in good ground, bread cast upon the waters whose return will be for the good of all the pupils who may come under his care. Its spirit will afford the best atmosphere for school work, which is not like certain experiments in physics, performed best in a vacuum.

With honest distrust I have ventured before you with this paper, feeling that it is rather a study in the direction of an essay than the essay itself.

The zest of novelty beguiled me into by-paths where there was doubtless a straighter road, and hence the journey was longer than it might have been.

A press of other duties closes the door against a retracing of the course, a species of retrogression eminently proper before an invitation to such a goodly company to go a trip with me.

As it is it must remain..

"What is writ is writ.
Would it were worthier."

Mr. JOHN W. DOWD, of Toledo, Ohio, read the following paper on the

EDUCATION OF THE SENSIBILITIES.

Our schools can not give us too much intellectual power, but they may give us too little of refined sensibility.

The great aim of life is not "to know" but "to be."

> "It is the heart and not the brain
> That to the highest doth attain,"

should sound forth strong and clear upon the dull ear of those who hold in their hands and under their care the tender susceptibilities of the young American heart.

There is no conflict between the education of the intellect and that of the sensibilities; you can not educate the former without increasing the capacity of the latter. It is true, at least in this case, that "what GOD has joined together, no man can put asunder."

> "Let knowledge grow from more to more,
> But more of reverence in us dwell,
> That mind and soul, according well,
> May make one music as before,
> But vaster."

The intellect may be trained; the sensibilities may be neglected. Skilled hands may lay broad and deep the foundations of our national greatness, but it is not the skilled hand alone that is to work out the destiny of our Republic; it is the skilled hand holding in its clasp the honest heart.

School life touches character at every point. There are faint-hearted persons who would ask leave to teach morality in our public schools, when the fact is that you can no more teach school without teaching morality, than the mason can lay brick into a grand and imposing structure without the aid of mortar.

Morality is the very mortar of the intellectual structure. The atmosphere of our schools should be one in which only the nobler feelings of the human heart can find food for life and growth.

It is said that STEPHENSON, when he saw the first train moving grandly by the power of his locomotive, exclaimed, "It is drawn by light," and so it was. The sunlight of millions of years ago, condensed into the black diamonds, had been let loose by the magic match to bear the mighty train on its onward way. And the light that shines from the life of a faithful teacher never dies. It may seem to be lost on the hard unimpressible nature of the rougher class of children, but "somewhere, somehow, sometime, in this world, or in the next," it will shine forth again in all its simplicity and beauty. I believe in the eternal conservation of sunshine.

The American youth need an education in the amenities of life. Manhood is simply an edition of boyhood, enlarged, rarely revised, for "childhood shows the man as morning shows the day."

A child that is surrounded by what is refined and elevated will, unconsciously it may be, grow into the likeness of his surroundings. There may be such a thing as "wasting sweetness on the desert air" but it can not be wasted in the school-room.

By looking at a man you can place him, you can tell who his associates are, and what influences are at work to lift him up or drag him down.

In a community of taste and culture you can read plainly of schools fruitful in qualities that produce these results.

Every school should be a place where learning and culture walk hand in hand, where mental strength and pleasing manners grow into each other as complements of a beautiful symmetry.

A noble character is never a stranger to a fine deportment. When JENNY LIND returned from her first visit to DANIEL WEBSTER she exclaimed excitedly to her friends "Oh, I have seen a man—a man." And what the young people in our school-rooms to-day are hungry for is manly men and womanly women. In the presence of such mighty forces is it, that "hearts in glad surprise to higher levels rise."

EMERSON'S daughter wrote to him to inquire what she should study. The philosopher replied that it mattered little what she studied, but everything with whom she studied.

The letter of the book may kill; the spirit of the real teacher gives life.

ROBERT COLLYER, big in body and large in heart, once came to our town to deliver a lecture. While there he visited the High School, completely captivating the boys and girls. It was wonderful to see how they were drawn to the man by the simple power of his manliness..

Mrs. LIVERMORE, who talked to the school a few days afterwards took occasion to ask one of the boys whether he got his money's worth out of Mr. COLLYER'S lecture. "Oh, yes," he replied, "and more too; why it was worth fifty cents just to look at the man."

A teacher should be worth looking at. He should be the best looking person in the world.

When pupils look to their teachers it should be with an upward, not a downward gaze, and when they turn to you their lifting eyes, stand not in their way to obscure what lies beyond, but be to them an inspiration to draw them farther on.

The great aim of life is to look up, ever up, constantly to see with keener vision things grand and glorious to behold, that fit us still for looking on. I like the ancient Greek word for man, signifying "one who looks up." A nation whose men were lookers above could hardly fail to reach the highest point in learning and civilization. The school life of every child should be to him an education in the love of the beautiful. The school-room should be "a thing of beauty and a joy forever." Costly and elegant things are not necessary to make a room cosy and homelike. A few pictures and a few flowers measure the whole distance from barren stolidity to a lively appreciation of the beauty there is in things. The dusty door-yards and naked walls of many homes are simply school-rooms bare and flowerless set out in the world. A little taste in the school-house is the lump of leaven that is needed to work a transformation in the humbler homes of our land. There are too many children starving on littered floors, ink-stained desks, flowerless windows, and naked walls. Children are keenly alive to all that is beautiful. They love flowers and pictures, and they are quick to appreciate ministrations to their finer sensibilities. The reason that so many children are growing downward, growing only in the direction of their animal propensities, is that they have no light from above. It is our business to turn on the light. It is our business to give them food for their better natures. It is our business to make them hungry "higher up."

School-room impressions so far as taste is concerned can never be effaced from the mind of the child.

LAMARTINE, in his life of CROMWELL, says, concerning the boyhood home of the Protector, "The poor, rough and unyielding nature of this moist country, the unbroken horizon, the muddy river, cloudy sky, miserable trees, scattered cottages, and rude manners of the inhabitants were well calculated to contract and sadden the disposition of a child. The character of the scenes in which we are brought up impresses itself upon our souls. Great fanatics generally spring from sad and sterile countries, as is the place so is the man. The mind is a mirror before it becomes a home," and in another place the same author says, "Our imagination is but the echo and reflection of the scenes which have originally struck upon us."

But river and sky and tree are not such mighty factors in character building as are the memories and associations of the school-room. The old school-house can never be put out of any life into which it has entered. Beyond the home, the school is all the world to many children, and they learn just what is found in that world and no more.

Behavior, deportment is one of the fine arts, and I have sometimes thought that to the youth of America it was one of the "lost arts." I long to see the teachers of the land heading the column in search of that which is lost.

Not many years ago heathen Japan sent some of her young men to America to be educated in learning and civilization. Four of them attended the Hartford High School, and by proper respect and deference to their superiors in age and wisdom excited the admiration of a community long suffering from the rudeness of its boys. So singular did it seem that these young Japanese should be sent hither to learn of our civilization, so exemplary were they in all their deportment, that MARK TWAIN rushed into print with a declaration of his suspicion that the real motives of the Japanese were concealed, and that they had entered into a horrible conspiracy to teach Young America good manners. It must be confessed that for a child more than one hundred years old, Young America has rather bad manners. I long to see the day when Young America shall cease to be the synonym for rudeness, impertinence, impishness, clownishness, and general contempt for the staid and sober ways in which his father does things. The every-day life of our youth should be animated with more dignity and self-respect.

A man can be judged accurately from the way in which he talks. We can see in his tones, strength, kindness, energy, and decision, or perhaps weakness, rudeness, lassitude, and indecision. That "speech is silver and silence golden" depends altogether upon who is talking and who is keeping still.

Words are the wings of thought by which they waft themselves from one mind to another, and you may see in them the flight of the eagle as he soars heavenward, or the course of the owl as he gropes his way in darkness down to the earth. The world needs to learn how to talk. There should be a reform in its every-day vocabulary. There is a tendency in youth to pick up every thing objectionable in language, all the way from slang to profanity. It's a matter of pride to be able to use slang, especially of the latest coinage. But where slang is luxuriant, thoughts of beauty can not grow. They do not thrive in such an atmosphere. They are sensitive plants that shrink from the touch of contamination. The first attack made upon purity is often through unchaste expressions. The bringing of all classes together in the public school furnishes an excellent opportunity for impurity to attack what is spotless. And the opportunity is never lost, and the lamentable fact is that the disease spreads by contagion and never the cure. Our schools should have lifting power enough to raise our common talk that sometimes dips down into the mire of slang and obscenity, up to the strong and sturdy level of "English pure and undefiled."

A boy properly trained feels a kinship to all that is noble. The true function of the teacher is to make the young feel akin to what is above them. But this can not be done by working on the outside alone. True dignity is from within. Good manners are simply the bud and blossom of the generous sympathy and kindly feelings of the human heart. When the sympathies and emotions are carefully nurtured, they blossom out into manifestations of grace and beauty, and ripen into deeds of kindness and love. Artificial flowers may be pretty, but they never bear fruit.

The matter of laughter is no trifling thing; it is an index of character. The world should learn how to laugh and when to laugh. There is the rude and boisterous noise sometimes palmed off for laughter. Then there is the succession of rasping hacks which to be laughter at all should be sandpapered. Then there is the horse laugh, useful perhaps in illustrating the doctrine of evolution, but sadly out of place in the schoolroom. It should be fossilized and placed where it belongs—among the horse fossils in MARSH's collection. Then there is the conventional grin that does not mean anything, and which unless checked leads to idiocy. Then there is real laughter, hearty laughter full of joy and rest and peace. There is laughter as gurgling, clear, and sparkling as water flowing down from heaven in the mountain stream, and flowing just as freely too, laughter that is the most musical music in the world, laughter that is not made, but just comes and you take it in. Some people put on their smiles, as they do their clothes. A genuine smile is born in the heart. These mere surface indications are heartless. We can not create laughter any more than we can make a sunbeam. But we can put the spurious coin out of circulation.

The mightiest force in the training of the sensibilities is the personal influence of the teacher. EMERSON applies SWEDENBORG'S theory, that the body is made up of homogeneous particles, to the analysis of NAPOLEON'S influence, as follows:—"If NAPOLEON is France, if NAPOLEON is Europe, it is because the men whom he sways are little NAPOLEONS." A great overpowering soul tends to bring all within its influence into subjection and likeness. And is it not true that if any teacher exercises extensive sway over his little kingdom of children, it is because he has made them by a subtle inductive power like unto himself?

A child can grow into his ideal best when its embodiment is by his side. Children are hero-worshipers, nor do they go beyond the circle of their own acquaintance for the object of their adoration. I would not have children made over on some other plan. It is always distressing to see people trying to be like somebody else. A lion is just as lovely in its way as a lamb. If you attempt to make a lamb out of a lion you spoil the lion and make a very poor lamb. The young should be developed along the line of their capabilities until they come to be themselves at their best.

In an atmosphere of kindly sympathy, of right doing, of correct thinking, of noble aspiration, and of high resolve, the heart becomes alive to every sentiment of truth and duty, and finds delight and nourishment in contemplation of "whatsoever things are pure, whatsoever things are honest, and whatsoever things are of good report."

HAWTHORNE, in his story of the Great Stone Face, illustrates the education there is in merely meditating upon what is beautiful. The Great Stone Face was a work of nature formed of immense rocks on the steep side of a great mountain. It was said to typify all that is good and true and beautiful in man, its features grandly impressed with the divinity originally stamped upon the race. There was a tradition in the valley at the mountain's base, that a child would be born there whose features in manhood would be an exact likeness of the great mountain copy. A little boy, ERNEST by name, patiently watched the face and eagerly looked for him whom it foreshadowed. The Great Face, let down as it were from Heaven above, was his constant companion, his only teacher, and while the world around were proclaiming first the Millionnaire, then the Warrior, then the Statesman as the Stone Face humanized, the little boy kept on by association approaching more nearly its sweetness, simplicity, and beauty. He became a kind of teacher and preacher to his friends and neighbors, and at last, his countenance transformed by the thoughts he harbored in his heart, *his* was proclaimed to be the likeness of the Great Stone Face. Happy is the teacher whose face, whose voice is to his pupils what the Stone Face was to ERNEST, a molding and transforming power.

No truer picture of the ideal teacher was ever drawn than that by Sir RICHARD STEELE of LADY HASTINGS: "To behold her is an immediate check to loose behavior; to love her is a liberal education."

The potency of noble sentiments "learned by heart" can not be overestimated in the training of the sensibilities. One day last winter I visited one of our suburban schools where were collected children of people in the humbler walks of life. Some of them were poorly clad, and many of them were intellectually below the average child. Upon the board plainly written by the painstaking teacher were some sentiments for recitation by the school. One of these made a peculiar impression upon my mind. It was from BEECHER, I believe, and as follows: "A flower is the sweetest thing GOD ever made and forgot to put a soul into." Of what use, I queried, is the selection of such thoughts for such children? Feeling a depression that often comes to the teacher under unfavorable circumstances, I left the school for home. It was a bitter cold day, and as I entered a street car, a mother came in leading her little boy some three or four years old. The little fellow was wringing his hands and crying from pain caused by the intense cold; and the mother beat the boy to keep him quiet. It was a singular scene to lighten one's heart, and yet I could not help thanking GOD and taking courage; for, I thought, the little boys and girls whom I have just left repeating the sentiment "a flower is the sweetest thing GOD ever made, and forgot to put a soul into," will never grow into men and women to beat their children crying from the pain of winter's cold.

EDISON has invented the curious phonograph that gives back accurately every syllable, every word, every sentence uttered against the disc that holds its recording finger, and is not the child a wonderful instrument giving back in like manner every word of honor, every sentiment of truth and integrity, every noble emotion that has had a chance to strike against his impressible life?

Somehow I think we are in this lower world in order that songs of beauty and truth and goodness may be impressed upon our minds and hearts; and in the hereafter, both in this world and in that which is to come, the power and harmony of our lives will be in the proportion in which we have had our minds and hearts open to the reception of those songs that elevate and ennoble.

The world is singing to us a never-ending song. We must listen; we must be impressed. With years of maturity, comes the ability to discern between the right and wrong, and then we can reject what would otherwise produce the worst of discord in our lives. But the young are safe only as defences are thrown about them, and if my boy is to sing in after years the songs that have been sung into him, it is of the utmost importance to me, it is of even more importance to him, that none but the most chaste and classic music salute his ears.

In one of the wars between the Spartans and Messenians, by advice of the oracle at Delphi, the Spartans sent to their old rivals, the Athenians, for a leader. Fearing to disobey the oracle, but desiring to render no real assistance, the Athenians sent to the Spartans a lame school-master named TYRTAEUS to be their general. But the Athenians were not so wise as they seemed. SAMSON is SAMSON though he can not see. The school-master is omnipotent though he can not walk. The lame TYRTAEUS by his martial songs infused new spirit into the sinking hearts of the weary army, and to him alone was the defeat of the Messenians mainly attributed. There is an army marching forward soon to engage in mighty battle—a battle in which every man may be a hero made strong in earnest conflict. Put your ear to the ground and you may hear them

Tramp, tramp, tramp
The *boys* are marching.

By what feelings, by what motives are they inspired? As in the days of yore, so even now it is the lame but omnipotent school-master that has put into their hearts the songs that will inspire them to deeds of heroic valor and of noble achievement.

There is another view of this subject of profound interest to the patriot.

Political parties in this country depend for their existence not so much upon real differences in regard to great questions of state as upon party pride and prejudice that come from long years of political contest. Men have been and will be moved by feeling.

The full sails of the emotions drive the hulk of the intellect over the great ocean of political affairs, and it is only when these sails are properly set that the Scylla of political pride and the Charybdis of sectional prejudice are avoided, and the voyage made in the calm, clear waters of eternal truth and justice.

It should not require the bullet of the assassin to waken into life the slumbering sympathies of a nation for its chief executive.

The President of the United States is as much entitled to the helpful consideration of the people when harassed by the daily round of official duty as when lying at the point of death, pierced by the assassin's bullet. And the nation should learn to hate the cause of evil as well as its effect. Party strife and factional hatred are no less evil because those who fan the one and cherish the other, shudder at the thought of the murder of which they are the remote and indirect cause. Little children may be made to learn that "he that hateth his brother without a cause is in danger of the judgment," and when they come to be men they will know that the golden rule of "whatsoever ye would that men should do unto you, do ye also unto them" is never so golden as when it softens the harshness of party into the common love of country.

The fever heat of party strife burns to the ashes of sectional hatred when its fires are fed by slander and misrepresentation, and this country of which we are accustomed to boast will be one in aim and spirit, as it is in form and law only when the fires of political controversy are tempered by the proper culture of the national heart.

If the sympathies and emotions of young America are carefully cultivated, they will grow up in manifestation of sectional appreciation, and become strong in deeds of national kindness and love,

"Till North and South together brought,
Shall own the same electric thought,
In peace a common flag salute,
And side by side in labor's free;
And unresentful rivalry,
Harvest the fields wherein they fought."

There was a discussion by Messrs. STEARNS, of Kansas, MOWRY, of Rhode Island, DE WOLF, of Ohio, and BICKNELL, of Massachusetts.

Upon recommendation of the nominating committee the following officers were elected for the ensuing year:

President, JOHN M. BLOSS, of Indiana.
Vice-President, W. O, ROGERS, of Louisiana.
Secretary, J. J. BURNS, of Ohio.

DEPARTMENT of INDUSTRIAL EDUCATION.

FRIDAY, JULY 22, 1881.

The Department was called to order by the President, E. E. **White**, of La Fayette, Indiana.

The following officers were elected for next year:

President, C. O. **Thompson**, of Massachusetts.
Vice-President, **Henry** H. **Fick**, of Ohio.
Secretary, S. R. **Thompson**, of Nebraska.

A vote of thanks was tendered the retiring President.

President **White** then delivered the following address on

INDUSTRIAL EDUCATION.

At the meeting of this department at Chautauqua, last year, I presented as an opening address a discussion of the question of Technical Instruction in Public Schools. On this occasion, it seems sufficient to present a brief statement of the principles advocated and the conclusions reached in that address.

1. The State has a right to teach any branch of knowledge that will promote the public welfare, but the right of the State to teach any branch does not necessarily make such instruction its duty. The obligation of the State to teach is conditioned by its ability and also by the necessities of the case. When needed, instruction is or will be efficiently given by other agencies, the State may or may not provide it,—such provision being then simply a question of expediency. The State's duty is met when necessary instruction is efficiently given.

2. The primary and imperative duty of the public school is to provide instruction and training of general application and utility. It is a common school,—a school designed to provide an education open to all youth and useful to all,—an education that prepares youth as a class to be, to do, and to enjoy the most possible in life. No knowledge or training which is not in harmony with this primary function has a true place in the public school. Whatever is taught must be an element of general education.

3. It follows from the above statements that the public school may properly teach all those elements of technical knowledge which may be made an efficient means of general training, and this includes the training of the eye and hand as well as the more direct culture of the mind and the heart. It also follows that it is not the duty of the public school to teach special trades or pursuits, or to provide technical training which has only a special application. It has done its part in preparing youth

for special pursuits when it has provided an efficient general preparation for all pursuits.

4. The public schools, as above defined, exhausts neither the right nor the duty of the State in education. It may encourage or support higher institutions of a literary, scientific, or industrial character. It may establish schools to meet the educational and industrial needs of unfortunate youth, as the blind, the deaf and dumb, etc.; and it may encourage or promote important industrial interests. It is difficult to state a limiting principle. It may suffice to say that the State should do nothing in special education, as a permanent policy, which experience clearly shows will be efficiently provided by private enterprise.

ANNUAL REPORT OF THE SECRETARY OF THE INDUSTRIAL DEPARTMENT.

At the meeting of this section at Chautauqua, it was voted that thereafter it should be the duty of the Secretary of the section to procure statistics of the condition and progress of Industrial Education during the year, and to report the same to the section at each annual meeting.

In accordance with this resolution the following summary has been prepared. It is far from being complete, yet will serve in some measure to show the drift and progress of this important part of our educational work. To procure even these meagre accounts has required an amount of correspondence and labor hardly contemplated by any one when the resolution requiring it was adopted.

For convenience the facts reported have been arranged under the following topics:—

1. New schools for Industrial training opened during the year.
2. The establishment of new industrial departments in schools hitherto in operation.
3. New or improved facilities for teaching manual arts in schools for the Deaf, Dumb, and Blind, and in Reform schools.
4. Movements looking towards the introduction of technical and industrial training into the public schools.
5. Bequests for the promotion of Technical or Industrial training.
6. The general drift of public opinion upon the subject of industrial training.

It may be mentioned by way of excuse for any inaccuracies of statement which may be found in the following pages, that the facts as given have been gleaned from a variety of sources, from letters, reports, catalogues, newspaper paragraphs, and from the Bureau of Education. Under the circumstances, it would not be strange if some errors have been made. Much care has been taken to give only correct statements, but with what success remains to be seen.

I. NEW INDUSTRIAL SCHOOLS.

1. The South Carolina College of Agriculture and Mechanics, was opened at Columbia, October 6th, 1880.

2. The State Agricultural and Mechanical College of Mississippi, at Starkville, opened its doors to students October, 1880.

Technical instruction is for the present mainly confined to Agriculture, but a building is in course of erection for laboratory and shop use, to aid in the instruction in mechanic arts.

3. The Miller Manual Labor School of Albemarle, Va., was opened in 1880.

By the terms of the bequest on which this school is founded, there is to be a building sufficient for the care and training of 100 pupils, with their teachers; a good sound English education, the various languages, agriculture, and the useful arts are to be taught.

The beneficiaries are to be orphan children and others whose parents are too poor to educate them, and are to be selected by the authorities of Albemarle County. The school opened with twenty odd scholars, and has made excellent progress. The erection of a work-shop is under consideration on the plan of that connected with the Free Institute at Worcester.

The Indiana Art School for women, located at Indianapolis, Ind., was opened in the year. It teaches free-hand and industrial drawing, designing, engraving, lithography, pottery, wood carving, and general industrial art.

The Chicago Technical Institute is the first successful attempt to establish a school of mechanic arts in the great city of Chicago. This school was established by the energy, pluck, and perseverance of one man, Mr. S. J. MACFARREN, and is now under his management. It has good quarters in the centre of the city, and has done good work during the year, The general scheme of instruction is based upon the Russian system, but there is a construction shop in connection with the school, in which work is done for the public, and by the proceeds of which the school is largely supported. To this construction shop, pupils in the school are admitted to work for wages, whenever this can be done with profit to them and the owner. It is found that this privilege acts as a strong stimulus to the pupils to advance in their regular lessons. No scholastic instruction is given, the pupils all going to the public schools.

Great credit is due to Mr. MACFARREN for his zeal and self-denying labors in building up this school, which for the present is carried on at a pecuniary sacrifice.

The Washington Cooking School, located at 1323 H. Street, Washington, D. C., was founded by Mrs. HELEN J. CAMPBELL, and promises to be a useful institution. Mrs. CAMPBELL is spoken of elsewhere as instrumental in organizing several prosperous cooking departments in connection with other schools.

II. NEW INDUSTRIAL DEPARTMENTS IN SCHOOLS HERETOFORE ESTABLISHED.

1. The Manual Training School of Washington University, at St. Louis, Mo., was opened in the autumn of 1880.

This school aims in a comprehensive spirit to provide a good technical and practical education for artisans and mechanics. The general plan of the school is similar to that of the Massachusetts Institute of Technology. The school contains a carpenter shop, with bench room for twenty pupils in a single class, and three classes can be taught by one instructor.

The pattern shop contains speed lathes and facilities for teaching wood turning and pattern making. There is also a blacksmith shop where elementary forging, tempering, and welding are taught; and a machine shop, for metal turning and kindred arts. Sixty pupils, some of them from the best families in St. Louis, were admitted at the beginning of the year. The pupils of this school learn scholastic studies at the same time in the Academy connected with the University.

2. The Texas Agricultural College was re-organized lately, and better manned for its special work than hitherto. Full instruction is now given in Agriculture, Horticulture, Engineering, and in Mechanic Arts, including carpentry, vise-work, and forging. The entire college domain conains 2,416 acres, of which 740 acres are to be improved for use of the Agricultural and Horticultural departments.

3. The Louisiana State University was re-organized in 1880, and is now to a considerable extent an industrial university. The topographical survey of the State is now in the hands of the faculty.

4. Colorado College has recently introduced a course of Mining and Metallurgy. It has also obtained control of the Santa Fe (New Mexico) Academy and at an early day will enlarge its curriculum in the direction of practical training.

5. The Agricultural Department of the Ohio State University has been enlarged and improved during the year, by the appointment of a Professor of Botany and Horticulture, and by the establishment of a new department including these sciences. The Mechanical Department now under the charge of Professor ROBINSON, formerly of the Illinois Industrial University, is now well established and is reported to be in a fine shape. A large brick building for a mechanical laboratory and shops has been erected and well stocked. Thus after long waiting, these two important departments at last seem to have received recognition as legitimate, coordinate departments of this excellent institution.

6. The Industrial College of the University of Nebraska, located at Lincoln, has been strengthened by the election of a Professor of Horticulture, the duties of this chair having been heretofore performed by the Professor of Agriculture.

7. The State Agricultural College of Michigan, at Lansing, has within the year established a department of Free-hand Drawing, and a non-resident lectureship of Veterinary Surgery.

The University of Minnesota during the current year will put into operation its Department of Mechanical Engineering. The very liberal appropriations for the University by the recent Legislature, will enable the Institution to secure all the buildings, machinery, and instruction necesssary to secure the success of this important branch of Industrial Education.

8. In Lasell Seminary, near Boston, cooking and dress-making are introduced on precisely the same footing as music or mathematics, and are

considered an essential part of woman's education. The cooking class has been under the tuition of Miss PARLOA. TAYLOR's system of dress-cutting is taught. The daily papers relate that at one time an evening party was held at which all the young ladies attended each clad in a calico dress cut and made by herself. Lasell does not aim to make cooks and dress-makers, but rather to strengthen the whole texture of woman's life, and to dignify the domestic industries by allying them with culture.

9. In the School for Girls at Raleigh, North Carolina, a department of cooking was established by Mrs. HELEN J. CAMPBELL. At the beginning there was much opposition and prejudice to overcome, but perseverance and pluck won the day. At the close of the term the trustees and friends of the school sat down to a supper cooked by the girls alone, which was voted a great success.

10. A new industrial feature has been introduced and is on trial in the Industrial School of the United Relief Works of the Society for Ethical Culture, in New York city. Clay blocks are used and children are taught to cut and mould them into simple geometrical forms, with the design of inducing correctness of eye and hand, and securing accuracy of measurement, together with some skill in the use of tools. The school is charitable and takes its pupils from the free Kindergarten of the same society. The children range in age from six to eight, and are those of poor workingmen. The idea of the school seems to be to train the eye to see and the hand to do—instruction rather than construction. Some of the ablest men in New York are managing this enterprise, and its outcome will be watched with interest.

III. NEW AND IMPROVED FACILITIES FOR TEACHING MANUAL ARTS IN SCHOOLS FOR THE DEAF, DUMB, AND BLIND, AND IN REFORM SCHOOLS.

1. The State Reform School at Eldora, Iowa, has lately introduced a new industry, the manufacture of hats. This school has always made farming its principal business, having five hundred acres under cultivation, but has also carried on shoemaking, tailoring and some other domestic handicrafts.

2. The Institution for the Deaf and Dumb, at Omaha, Neb., has lately added several new industries to those hitherto carried on. The last legislature made a liberal appropriation to build a new work-shop.

3. At the North Carolina Institution for the Deaf and Dumb, a class in Cooking was taught by Mrs. HELEN CAMPBELL. The work was so satisfactory that a permanent department for teaching cooking and other household economies is to be continued by a lady trained for the work by Mrs. CAMPBELL. This opens up the possibility of a new industry for the young girls, who are largely from the poorest and most helpless class of the population, and whose chances of earning a livelihood are the poorest.

IV. MOVEMENTS TOWARDS THE INTRODUCTION OF INDUSTRIAL OR TECHNICAL TRAINING INTO THE PUBLIC SCHOOLS.

1. The Legislature of New Jersey, at its last session, enacted a law which provides that any city desiring to have a technical school, may draw upon

the State treasury for a sum equal to the amount contributed by the city, for the erection and furnishing of the necessary buildings, and every year thereafter it may draw upon the State treasury for a sum equal to the amount contributed by the city, for the maintenance of said school; provided that the sum drawn from the State in any one year by any city shall not be less than $3,000 nor more than $5,000. The bill was enacted last winter. No schools have yet been established under its provisions. Newark is likely to establish one soon.

2. A committee appointed by the Maryland Institute have memorialized the State Legislature to grant the Institute an annual appropriation with the view of organizing a normal art class or school for the training of teachers for the public schools in free-hand and industrial drawing; also to grant an appropriation for the establishment of an art industrial museum. The request has met with a favorable consideration.

V. BEQUESTS AND DONATIONS FOR THE PROMOTION OF INDUSTRIAL EDUCATION.

1. A gift of one and a quarter million dollars has lately been made to establish a school of applied sciences at Cleveland, Ohio.

2. The School of Arts at Toledo has had given to it two hundred thousand dollars.

3. The Manual Training School of Washington University, Mo., has had a number of valuable gifts of money aggregating $10,000 down and $4,000 per year for ten years from wealthy citizens of St. Louis, who appreciate the important work this school has to do.

4. Samuel Miller, of Virginia, recently deceased, has left in trust a large amount of real estate for the establishment of an institution to be known as "The Manual Labor School of Albemarle, Va." Particulars of this foundation are given under the head of new schools.

VI. THE GENERAL DRIFT OF PUBLIC OPINION ON THE SUBJECT OF INDUSTRIAL TRAINING.

It is safe to say in general, that the current of public opinion is setting very strongly in favor of industrial education. This is indicated in many ways, among which the following may be mentioned:

1. In the number of projects for the establishment of new schools; or of *new* departments in schools now in operation. A late number of the Educational Weekly, published at Chicago, says that there are forty industrial schools for girls in that city, and that their good effect on the juvenile population is already quite perceptible. Again it says Philadelphia is soon to have a technical school of mechanics to be under the care of a corps of experienced workmen as instructors. The course of thirty lessons, thirty lectures, and sixty hours' practice, divided into terms of ten weeks each, is to cost the sum of $15. This also includes the use of materials and tools.

A training school for young lads, where they may be taught the art of good farming, is to be established at Hartford, Ct. A fund was devised for the purpose twenty-four years ago by David Watkinson, with the condition that it lie at interest until it should amount to $100,000. This amount is now credited to the fund.

The Kitchen Garden School Association, whose principal schools are in New York, have made notable progress during the past year. The object is to educate domestic help. There were during 1880 in operation in New York 11 schools with 200 pupils.

An effort is now making, with good promise of success, to introduce a special scheme of Industrial Education into the Reform School of Rhode Island.

2. The rapidly increasing spread of drawing and designing in all classes of schools. The State of New Jersey has decided to introduce free-hand and industrial drawing into the common schools of the larger manufacturing centres. During the last year the work was begun at Trenton, Newark, and one or two other points.

The school authorities of Lincoln, Nebraska, have decided to introduce a systematic course of industrial drawing into the public schools of the city.

3. The extension of the usefulness of the experimental farm stations, in several States, notably in Connecticut, California, Colorado, Indiana, Louisiana, and Nebraska.

The Agricultural Colleges of Vermont, Pennsylvania, Colorado, New Hampshire, Illinois, Michigan, Iowa, and Nebraska, have been extending the system of having professors and students attend the Farmers' Institutes, where by discussions, lectures, and experiments they may give and receive instruction.

4. All the technical schools from which reports have been received show an increase of the number of students in preparation for industrial pursuits.

The contractors for a new $30,000 building for the Kansas Agricultural College were both students of the college, one of them a graduate of 1877.

Purdue University, Lafayette, Ind., is now erecting a fine building for its promising Experimental Station.

5. The increased attention given to the subject of industrial education by the press is another indication of the extent to which public opinion is awakened. Nearly or quite all the leading magazines have had elaborate articles on the topic, during the year, and an unusually large number of books bearing upon industrial education in some of its forms have been published during the year. I mention only those which I have been able to obtain.

"Primer of Domestic Science, No. 1," "Kitchen and Dining-Room Work," by Mrs. HARRIET J. WELLARD, published by Geo Sherwood & Co., Chicago.

"Illustrated Sewing Primer," arranged by LOUISE J. KIRKWOOD. Published by Wynkoop & Hallenback, 121 Fulton St., New York City.

"A Domestic Problem, or Work and Culture in the Household," by Mrs. A. M. DIAZ, and "The Schoolmaster's Trial," by A. PERRY; both published by James R. Osgood & Co., Boston.

"Kitchen Garden Primers," by Miss GRACE DODGE, Corresponding Secretary Kitchen Garden Association, No. 262 Madison Avenue, New York City.

"Wood-Working Tools and how to Use them." Published in Boston.

Nearly all the publishers of Series of Drawing Books have issued revised editions during the year, and many new series have been published.

Besides all these the reports issued by the different technical and industrial schools, many of them elaborate and valuable, and aggregating in amount what would make several large octavo volumes, are not to be forgotten.

General Eaton, in a communication from the Bureau of Eucation, remarks that "The large correspondence of this office on the subject of Industrial Education during 1880 is proof of increased interest in the subject.

The Bureau of Education is engaged under the following resolution of the Senate, in the preparation of a comprehensive report:

Resolved, That the Secretary of the Interior is directed to furnish to the Senate such information as is in the possession of the Bureau of Education in relation to the state of Technical or Industrial Education in the schools and colleges endowed in whole or in part by the Government of the United States, and also in other schools and colleges in the several States and Territories and in the District of Columbia, and the extent to which provision has been made for the education of females in technical and industrial branches of education, and the number of females in attendance at said schools. (Adopted March 12, 1880).

In conclusion your secretary desires to acknowledge cordially many courtesies extended to him while gathering the material for this report, and only regrets that want of space will not allow him to mention by name all the kind friends who have so promptly and kindly responded to his unofficial call for information. All of which is respectfully submitted.

S. R. Thompson, *Secretary Industrial Section.*

The following resolution was presented by Mr. C. C. Rounds, and adopted:

Resolved, That the U. S. Commissioner of Education be requested to embody in an educational circular the paper presented to this department by President E. E. White, a general and brief statement of the condition of industrial education in the country previous to 1880, and the report of the secretary on the progress of industrial education during the year 1880, and that the attention of educators and the press be especially called to this publication.

On motion it was ordered that the secretary be requested to continue his investigations during the year.

L. S. Thompson then read the following paper on

THE DECAY OF APPRENTICESHIP; ITS CAUSE AND REMEDIES.

Apprenticeship is dead. As this fact seems to be admitted by all, we cannot afford to spend much time on its funeral services. Its death is perhaps to be regretted until something better can be devised to take its place. That better something will surely be forthcoming, and when it is well established we shall all probably rejoice at the decay of the former method of learning trades. It may have been the best method under the circumstances, but it never was wholly adapted to the task of producing skilled and *intelligent* workmen. The master himself was not always a skilled workman. If he were he may not have been a good teacher. If he were a skilled workman and a good teacher, it was often to his interest not to teach, especially after the apprentice became skilled in some particular process, upon which it was profitable to the master to keep the young mechanic at work.

The causes which have led to the decay and final dissolution of this system are no doubt well understood by this body of educators. I need only to state them in order to have them recognized. Its first blow, which was necessarily mortal, came from the division of labor. This division of labor is one of the most potent instruments by which man lifts himself above his mere animal wants and finds time and opportunity to cultivate his spiritual nature. Division of labor struck the death blow to the old apprenticeship system by abolishing the trades themselves. There is no such trade now as that of a wagon-maker, or a shoemaker. One man learns to make the spokes of a wheel, another the felloes, another the hub, another puts these together, and another does the finishing, &c. So with shoe-making and other trades; one man performs a very small portion of the whole work, or it may be he only guides the *machine* that performs this process.

This leads us to say further that the introduction of labor-saving machinery has been the accomplice and ally of the division of labor in the destruction of apprenticeship. In addition to these mortal wounds from division of labor and labor-saving machinery, the trades unions have stepped in and added the finishing blow by passing laws prohibiting their members from receiving only a very limited number of boys for the purpose of learning trades, or what there is left of them.

Apprenticeship can never be resuscitated. The causes which have brought about its decay and death are still actively at work, and from the very nature of things must and ought to continue until man is no more a slave to the necessities of his body. The invention and introduction of machinery is man's triumph over matter and his elevation above the use of mere brute force. Hence all who desire man's freedom from the slavery and drudgery of providing for his animal wants, must rejoice in the multiplication of machines and the still further division of labor.

We shall no doubt be reminded at this point that every machine introduced throws somebody out of employment. There is some truth in this, but it is only a temporary disarrangement. Machines not only *supply* the demand for laborers, but they also *create* a demand for other laborers. But whether the introduction of machinery be a good thing, or a bad thing, as to the ultimate welfare of society, we cannot prevent it. The process must and will go on. It is our duty as educators to prepare the youth of our day in such a manner, that when the mowing or reaping machine overtakes him with a scythe or sickle in hand, he shall be so well prepared for emergencies that he can at once drop his old implements and guide the new machine. We must prepare the coach driver so well by a cultivation of his hand and brain power that when the iron horse overtakes him with whip and reins in hand he may be able, on short notice, to drop them, mount the cab of the locomotive, seize the handle of the throttle valve and guide the chariots of human freight to their destination with speed and safety. This is not so difficult a task as might at first be supposed. When trades are gone, no long apprenticeship is needed by a person of trained mind and body, a few weeks being sufficient sometimes to learn to run a machine doing the work that required much time to learn by hand processes. Under the new order of things the training must be different. While the body must receive due attention as heretofore, the brain must not be neglected. It is true the machine is a brainless thing, but it was invented by a person of brains and intelligence, and it must have such a person to direct it. Man without machinery can only exercise physical force with his own body, and he must necessarily wear himself out as a drudge. Machinery relieves him of this slavery, and allows and requires knowledge and intelligence in the operator.

REMEDIES.

As to the second part of our subject, the remedies, what we have to propose, would probably better be called substitutes. We cannot revive apprenticeship if we would, and perhaps we would not if we could. What we propose to do in the common schools is that we give a technical or practical *tendency* to all our teaching. We would not change the curriculum of studies so much as our methods of instruction. The great substitute for the loss of apprenticeship is education—general education—that which gives quickness to mental perceptions and skill in the use of the hands. *Versatility* is the great need of the laborer in this age of machinery, so that when some machine is invented that does his work better and more rapidly than he can do it himself, he may be able either to run the machine, or turn his attention to something else. A general education such as is given in our common schools and colleges by teachers who understand and insist upon the practical bearings of what they teach, best fits the laborer for turning from one vocation to another. A special education, in the narrow and extensive sense of that word, unfits him for such a change.

What do I mean by giving a practical tendency to our instruction? I mean this: Let the child enter the kindergarten and use its hands in weaving and interlacing strips of colored paper; exercise its powers of construction and invention with building blocks; cultivate its perception of form and skill in manipulation by modelling in clay, etc. When the child enters the common school, instead of spending so much time on the spelling of difficult and uncommon woods, in the solution of puzzling problems in Arithmetic, on the study of details in Geography, let Industrial Drawing be introduced, practical geometry also, and the elements of science. By industrial drawing I do not mean the copying of pictures. I mean the study of form as exhibited both in natural and artificial objects, as shown to us in geometry and as worked out with ruler and compass.

If I were not speaking to the foremost educators of the country, and perhaps of the world, I would like to emphasize the importance of drawing. When properly taught it is more nearly an industrial education within itself than any other one study, and yet in a great majority of the schools of the country it is regarded as something merely ornamental in character, having but little or no practical value. Perhaps "less provision has been made for the training of the eye than of any other organ; although, in the great industrial world, it, as the chief organ of perception, is used even more constantly than the hand; in fact, it is the pilot of the boat who rings orders to the latter as engineer." It has been well said by some one that it is "the sixth sense of the skilled workman." Prof. VIRCHOW, an eminent German professor, says: "Nothing which comes through your eyes into your head ever goes out." The power of "seeing in space" is greatly increased by a proper study of drawing and geometry, which is the science of form as well as of magnitude. This power of seeing a thing before it has an existence, is very near akin to the creative power which allies us so far to our great Creator, our uncreated Maker. It is this power which enables the wagon-maker to see an embryo carriage, the carpenter an embryo house, and the ship-builder an embryo ship in a tree or stick of timber. It enables the potter to see a common crock, pitcher, or beautiful vase, and the sculptor to see the enchanting ideal human form in a piece of clay.

Included under the head of Industrial Drawing I would have clay modeling hold a prominent place. The youth who can take a piece of clay, wax, or other soft material and mould it with his fingers or other simple implements into any desirable form, has learned the elements of many useful trades. When he has learned the use of wood tools he can fashion anything he chooses in wood. When he adds the use of chisel and mallet he can cut anything he pleases in stone or marble. When he can use the hammer and anvil at the forge, he can become an ornamental iron-worker.

We wish also to strongly insist upon the teaching of practical geometry in the common schools. In geometry, as well as in most school studies, there are two sides, a theoretical and a practical side. If the theoretical side is exclusively taught we shall make scientists; if the practical side, we may do something towards helping practical workmen. We can *show* to a young student through his sight that the square described on the hypothenuse of a right-angled triangle, is equal to the sum of the squares described on the other two sides, although we may not make him understand the logical demonstration. We can convince even a child, with a card-board triangle, that the sum of the angles of a triangle are equal to two right angles, though it may be years before it would be profitable to have him study a scientific proof. These examples will illustrate what we mean by teaching the practical side of geometry to young pupils. The teaching of the practical side of a science or teaching it as an art, does not necessitate narrowness or superficiality. It is nature's method to teach the art first and the science afterward. Hence to make mathematics practical, let us teach through lines and figures, and hence through the sight, or perception, instead of through algebraic symbols, which appeal more directly to the reason. The tools that a mechanic uses constantly, such as the straight-edge, chalk-line, rule, square, level, plumb, gauge, compass or dividers, tape-line, and chain, should convince us that we must place over every shop door that ancient inscription: "No man ignorant of geometry enters here." A mechanic or manual laborer of any kind, probably spends fifty minutes in laying off lines where he spends five minutes in making computations. Hence skill in representation has a greater cash value to him than skill in the use of figures, and in his education more prominence should be given to the mastery of lines than to that of symbols.

To drawing, clay-modeling, and practical geometry, we would add physics and chemistry. The processes of manufacture and the work of our every-day lives depend so much on a knowledge of these subjects, that we must consider them as quite indispensable under the new order of things. We do not claim that what we have proposed here for the common schools will be sufficient of itself as a substitute for the old system of apprenticeship. We only claim that the teaching of what is common to all callings is the best use to be made of the common schools in this connection. The moment we step aside to teach some special trade in the common schools, in which only a few can be specially interested, we shall be obliged to neglect some general instruction in which *all* are interested. The connection, then, of the workshop as such with the common schools has been condemned by the best educational authorities in the world, for the following reasons:—There is not time. There is not physical strength on the part of young pupils to use the implements belonging to the trades. Young pupils, especially in the United States, do not know what they will follow as an occupation to obtain a living.

As supplementary to the common schools we would have the State establish technical schools or schools of practical art, science, mechanics, and agriculture, in which shall be taught not shoe-making, wagon-making, and carpentry, blacksmithing, farming, etc., but the hand processes that underlie all of these and many more trades. These schools should be established for the purpose of *in*struction and not *con*struction. I mean by this that as soon as a boy or girl has learned the use of a tool in some mechanical process, in a school of this kind, he should learn some other process and not be kept at work on that in which he has become proficient, for the purpose of making something saleable in the market. At this point we shall be met by the suggestion that a real workshop brought into contact and competition with every-day life is the best place to learn a trade. To this we answer, that depends on several things: If the master of the young learner has as good or a better knowledge of the scientific principles and processes actually used in a trade; if he has greater skill in the application of these principles; if his apparatus is better or more complete for illustrating these principles and processes; in short, if he is as good or a better teacher; if he will devote his time and the use of his shop to the purpose of teaching the young boys what to do and what not to do, and showing them the best ways of doing a desirable thing and of avoiding an undesirable thing,—we will agree that such an apprentice system is the most desirable. But did any one ever hear of or know of such a "fortunate combination of essential advantages" in an actual work-shop, established to make money? And, if such a shop could be found it would only be a practical school of mechanics such as we are advocating.

I anticipate another objection: Some one may say that Congress has provided for schools of mechanics and agriculture by the land grant of 1862, and that these schools are now turning out professional men, lawyers, doctors, clergymen, etc., in nine cases out of ten, instead of farmers and tradesmen. My answer is this: These schools, most of them are founded upon the old classical idea. For presidents and professors of these institutions we too often select clergymen, or men who do not fully realize the practical side of the sciences. These professors are teaching just as their predecessors have been doing for hundreds of years. They are teaching what is called pure science instead of practical science. Men who do not have any practical skill of hand and body themselves are not likely to inspire students with a love of manual employments. When we have professors in these institutions who not only understand the sciences theoretically, but who can practice the art side of them, and shall so teach their pupils, we shall probably have different results.

DEPARTMENT OF SUPERINTENDENCE.

The following officers were elected for next year:—

President, W. H. RUFFNER, of Virginia.
Vice President, N. A. CALKINS, of New York.
Secretary, H. S. JONES, of Pennsylvania.

CONSTITUTION

OF THE

NATIONAL EDUCATIONAL ASSOCIATION.

PREAMBLE.

To elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States, we whose names are subjoined, agree to adopt the following

CONSTITUTION:

[*As Amended July* 13 *and* 16, 1880.]

ARTICLE I.—NAME.

This Association shall be styled the National Educational Association.

ARTICLE II.—DEPARTMENTS.

§ 1. It shall consist of five Departments: the first, of School Superintendence; the second, of Normal Schools; the third, of Elementary Schools; and the fourth, of Higher Instruction, and the fifth of Industrial Education, and a National Council of Education.

§ 2. Other Departments may be organized in the manner prescribed in this Constitution.

ARTICLE III.—MEMBERSHIP.

§ 1. Any person in any way connected with the work of education shall be eligible to membership. Such person may become a member of this Association by paying two dollars and signing this Constitution; and he may continue a member by the payment of an annual fee of two dollars. On his neglect to pay such fee, his membership shall cease.

§ 2. Each department may prescribe its own conditions of membership, provided that no person be admitted to such membership who is not a member of the general Association.

§ 3. Any person eligible to membership may become a life-member by paying at once, twenty dollars.

ARTICLE IV.—OFFICERS.

§ 1. The officers of this Association shall be a President, twelve Vice-Presidents, a Secretary, a Treasurer, one counsellor for each State, District, or Territory represented in the Association, and the officers charged with the administration of their respective departments. Any friend of education may become a life-director by the donation of one hundred dollars to the Association at one time, either by himself or on his behalf; and any educational association may secure a perpetual directorship by a like donation of one hundred dollars, the director to be appointed annually or for life.

§ 2. The President, Vice-Presidents, Secretary, Treasurer, Connsellors, Life-Directors, and presiding officers of their respective departments, shall constitute the Board of Directors, and, as such, shall have power to appoint such committees from their own number as they shall deem expedient.

§ 3. The elective officers of the Association shall be chosen by ballot, unless otherwise ordered, on the second day of each annual session, a majority of the votes cast being necessary for a choice. They shall continue in office until the close of the annual session subsequent to their election, and until their successors are chosen.

§ 4. Each department shall be administered by a President, Vice-President, Secretary, and such other officers as it shall deem necessary to conduct its affairs.

§ 5. The President shall preside at all meetings of the Association and of the Board of Directors, and shall perform the duties usually devolving upon a presiding officer. In his absence, the First Vice-President in order who is present shall preside; and in the absence of all the Vice-Presidents, a *pro tempore* Chairman shall be appointed on nomination, the Secretary putting the question.

§ 6. The Secretary shall keep a full and accurate report of the proceedings of the general meetings of the Association and all meetings of the Board of Directors; and shall conduct such correspondence as the Directors may assign; and shall have his records present at all meetings of the Association and of the Board of Directors. The Secretary of each department shall, in addition to performing the duties usually pertaining to his office, keep a list of the members of his department.

§ 7. The Treasurer shall receive and hold in safe keeping all moneys paid to the Association, shall expend the same only upon the order of the Committee of Finance; shall keep an exact account of his receipts and expenditures, with vouchers for the latter, which accounts he shall render to the Board of Directors prior to each regular meeting of the Association, and shall also present an abstract thereof to the Association. He shall give bonds for the faithful discharge of his duties as may be required by the Board of Directors.

§ 8. The Board of Directors shall have power to fill all vacancies in their own body; shall have in charge the general interest of the Association; shall make all necessary arrangements for its meetings; and shall do all in its power to make it a useful and honorable institution. Upon the written application of twenty members of the Association for permission to establish a new department, they may grant such permission. Such new department shall in all respects be entitled to the same rights and privileges as the others. The formation of such department shall in effect be a sufficient amendment to this Constitution for the insertion of its name in Article II., and the Secretary shall make the necessary alterations.

§ 9. The Board of Directors shall appoint three trustees into whose hands shall be placed for safe keeping and investment, all funds which the Association may receive from the creation of life-directorships, or from donations, unless the donors shall specify other purposes for which they may be used. The income of such funds so invested shall be used exclusively in defraying the expense of publishing the annual volume of the Association, unless the donors shall specify otherwise. The Board of Directors shall require such trustees to give to the Association their joint bond in a sum equal to twice the amount of such trust fund as may be in their hands.

ARTICLE V.—MEETINGS.

§ 1. The annual meeting of the Association shall be held at such time and place as shall be determined by the Board of Directors.

§ 2. Special meetings may be called by the President at the request of five Directors.

§ 3. Any department of the Association may hold a special meeting at such time and place as by its own regulations it shall appoint.

§ 4. The Board of Directors shall hold their regular meetings at the place, and not less than two hours before the assembling of the Association.

§ 5. Special meetings may be held at such other times and places as the Board or the President shall determine.

§ 6. Each new Board shall organize on the day of its election. At its first meeting a Committee on Publication shall be appointed, which shall consist of the Secretary of the Association for the previous year, and one member from each department.

ARTICLE VI.—BY-LAWS.

By-Laws not inconsistent with this Constitution may be adopted by a two-thirds vote of the Association.

ARTICLE VII.—AMENDMENTS.

This Constitution may be altered or amended at a regular meeting by the unanimous vote of the members present or by a two-thirds vote of the members present, provided that the alteration or amendment has been substantially proposed in writing at a previous meeting.

BY-LAWS.

1. At each regular meeting of the Association there shall be appointed a Committee on Nominations; one on Honorary Members; and one on Resolutions.

2. The President, First Vice-President, and Secretary shall constitute a Committee on Finance.

3. Each paying member of the Association shall be entitled to a copy of its proceedings.

4. No paper, lecture, or address shall be read before the Association or any of its departments, in the absence of its author, nor shall any such paper, lecture, or address, be published in the volume of proceedings without the consent of the Association in each case.

MEMBERSHIP

OF THE

NATIONAL EDUCATIONAL ASSOCIATION.

LIST OF LIFE-DIRECTORS.

BALTIMORE, 1876.

Phelps, W: F., Winona, Minn.,
White, S. H., Peoria, Ill.

LOUISVILLE, 1877.

Marshall, T: Marcellus, Glenville, W. Va.

PHILADELPHIA, 1879.

Philadelphia Teachers' Institute.

LIST OF LIFE-MEMBERS.

[Addresses have been changed from those of last year only in cases in which the change has come under the positive knowledge of the Secretary.]

OGDENSBURG, 1864.

Barnard, Henry, Hartford, Conn.,
Bradley P., Lyons, N. Y.,
Cruikshank, J., Brooklyn, N. Y.,
Danforth, Edward, Elmira, N. Y.,
Eberhart, J. F., Chicago, Ill.,
Hagar, D. B., Salem, Mass.,
Pennell, C. S., St. Louis, Mo.,
Richards, Z., Washington, D. C.,
Wells,* D. F., Iowa City, Iowa,
White, S. H., Peoria, Ill.

HARRISBURG, 1865.

Greene, S. S., Providence, R. I.,
Hartshorn, O. N., Mt. Union, Ohio,
Ingram, S. D., Harrisburg, Pa.,
Sheldon, W: E. Boston, Mass.,
Wickersham, J. P., Harrisburg, Pa.

INDIANAPOLIS, 1866.

Curran, U. T., Sandusky, Ohio,
McRae, H. S., Muncie, Ind.,
Mayhew, Ira, Albion, Mich.,
Norris,* J: A., Columbus, Ohio.

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* *Deceased.*

CLEVELAND, 1870.

Arey, Oliver, Cleveland, Ohio,
Allen, Ira, W., Chicago, Ill.,
Cole, W: H., Marysville, Ohio,
Crosby, W: E., Davenport, Iowa,
Hoyt, J. W., Madison, Wis.,
Hoose, J. H., Cortland, N. Y.,
Hobbs, B. C., Annapolis, Ind.,
Heywood, C. W., Cheshire, Mich.,
Holden, L. E., Cleveland, Ohio,
Jones, D.W., Boston (Roxb'y), Mass.,
Williams, Mrs. Delia A., Delaware, O.,
Manly, R. M., Richmond, Va.,
M'Guffey,* W: H., Charlotteville, Va.,
Phelps, W: F., Winona, Minn.,
Read,* Daniel, Columbia, Mo.,
Rickoff, A, J., Cleveland, Ohio,
Stone, Mrs. M. A., New Milford, Ct.,
Tourjee, Eben, Boston, Mass.,
Wilcox, M. C., Boston, Mass.,
White, Emerson, E., Lafayette, Ind.

ST. LOUIS, 1871

Anderson, J: J., New York, N. Y., Box 1619.

BOSTON, 1872.

Stone, E. M., Providence, R. I.

ELMIRA, 1873.

Haines,* Miss Henrietta B., New York, N. Y.

BALTIMORE, 1876.

Armstrong, Allen, Sioux City, Iowa,
Beals, S. D., Omaha, Nebraska,
Bell, W: A., Indianapolis, Ind.,
Brooks, Edward, Millersville, Pa.,
Cruikshank, Jas., Brooklyn, N. Y.,
Dorna, G. Videla, New York, N. Y.,
Forbes, Alex., Cleveland, Ohio,
Hancock, John, Dayton, Ohio,
Harris, W: T., Concord, Mass.,
Henkle,* W: D., Salem, Ohio,
Marshall, T. M., Glenville, W. Va.,
Newell, M. A., Baltimore, Md.,
Richmond, Sarah E., Baltimore, Md.,
Rollins, Jas. S., Columbia, Mo.,
Rounds, C. C., Farmington, Me.,
Schmitz, J. Adolph, Lake Forest, Ill.,
Stevens, M. C., Lafayette, Ind.,
Stone, Mrs. M.A., New Milford, Conn.,
Thompson, L. S., Lafayette, Ind.,
White, Emerson E., Lafayette, Ind.,
Wickersham, J. P., Harrisburgh, Pa.

LOUISVILLE, 1877.

Bartholomew, W. H., Louisville, Ky.,
Franklin, M. B., Grapevine, Texas,
Kalfus, Anna L., Louisville, Ky.,
McRae, Ham. S., Muncie, Ind.,
Mills,* Caleb, Crawfordsville, Ind.,
Monsarrat, Mrs. L. L., Louisville, Ky.,
Smart, J. H., Indianapolis, Ind.,
Soldan, F. Louis, St. Louis, Mo.

PHILADELPHIA, 1879.

Calkins, N. A., New York, N. Y.,
Foster, Rachel Gordon, 1909 N. 12th St., Philadelphia, Pa.,
Gratz, Simon, Philadelphia, Pa.,
Kraus, John New York, N. Y.,
McMillan, Reuben, Youngstown, O.,
Paxson, Joseph A., Philadelphia, Pa.,
Sheldon, W: E., Boston, Mass.,
Shippen, Edward, Philadelphia, Pa.

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*Deceased.

CHAUTAUQUA, 1880.

Bennett, Hampton, Franklin, Ohio,
Bibb, Grace C., Columbia, Mo.,
Brown, G: P., Terre Haute, Ind.,
Brown, Leroy D., Hamilton, Ohio,
Burns, Jas. J. Chillicothe, Ohio,
Coe, Miss E. M., New York, N. Y.,
Davidson, C. C., New Lisbon, Ohio,
Dutton, Bettie A., Cleveland, Ohio,
Gilchrist, J. C., Cedar Falls, Iowa,
Hitz, John, Washington, D. C.,
Irwin, J: S., Fort Wayne, Ind.,
McMillan, Mrs. S., Youngstown, O.,
Marble, Albert, P., Worcester, Mass.,
Miller, Lewis, Akron, Ohio,
Patridge, Lelia, E. Philadelphia, Pa.,
Peaslee, John B., Cincinnati, Ohio,
Rickoff, Mrs. R. D., Cleveland, Ohio,
Setzepfand, A., Dalton, Ga.,
Singer, Edgar A., Philadelphia, Pa.,
Spring, E. A., Perth Amboy, N. J.,
Stevenson, R. W., Columbus, Ohio,
Widner, Esther, Dayton, Ohio,
Wilson, J. O., Washington, D. C.

ATLANTA, 1881.

DeWolf, Daniel F., Columbus, O.,
Mallon, Mrs. Frances C., Atlanta, Ga.,
Woodward, G. A., Selma, Ala.

NAMES ENROLLED AT ATLANTA,

ARRANGED BY STATES.

The names printed in small capitals are of life-members, and those printed in italics are of persons who sent their membership-fees, but who were not present at the Atlanta meeting.

ALABAMA.

H. C. Armstrong, Montgomery,
Geo. H. Bemus, Marion,
Thos. C. Bragg, Pleasant Hill,
J. T. Dunklin, Auburn,
Miss N. C. Gibbs, Selma,
W. H. Giesler, Midway,
John Massey, Tuskegee,
G. W. Maxdon, Auburn,
J. K. Powers, Florence,
T. R. Rusk, Eufaula,
James M. Stephenson, Oxford,
W. W. Wilson, Birmingham,
G. A. WOODWARD, Selma,
Homer Wright, China Grove.

ARKANSAS.

J. M. Fish, Little Rock,
O. F. Russell, Little Rock.

CALIFORNIA.

Hamilton Wallace, Salinas City.

CONNECTICUT.

D. N. Camp, New Britain,
B. G. Northrop, Clinton.

DISTRICT OF COLUMBIA.

John Eaton, Washington,
Mrs. Louise Pollock, Washington,
Mary S. Shields, Washington, 827 14th Street.

FLORIDA.

E. K. Foster, Tallahassee,
A. J. Russell, Jacksonville.

GEORGIA.

J. H. Abernethy, Danville,
Robert Adams, Eatonton,
Otis Ashmore, Harlem,
T. E. Atkinson, Senora,
W. H. Baker, Savannah,
Samuel Barnett, Washington,
William A. Bass, Atlanta,
J. W. Beck, Bowdon,
L. E. Bleckley, Atlanta,
Wm. B. Bonnell, Edgewood,
Eliza A. Bowen, Atlanta,
Jas. S. Boynton, Griffin, Spalding Co.,
Alice Brinkley, Quitman,
Sterling G. Brinkley, Quitman,
Mrs. Belle Brown, Americus,
Joseph E. Brown, Atlanta,
S. J. Brown, Carrollton,
James A. Burns, Atlanta, Box 456,
S. C. Caldwell, Rome,
Miss S. S. Candler, Barnesville,
L. H. Carter, Smithville, Lee Co.,
J. Harris Chappell, Columbus,
Mrs. Thos. N. Chase, Atlanta,
W. O. Connor, Cave Spring,
William Henry Crogman, Atlanta,
Mrs. A. A. Davis, Macon,
Geo. M. Dews, Columbus,
F. C. Dickey, Adairsville,
Ivy W. Duggan, Linton,
Mrs. M. E. Edwards, Marshallville,
Wm. B. Fambrough, Thomson,
Miss L. A. Field, Atlanta,
C. W. Francis, Atlanta,
B. P. Gaillard, Dahlonega,
J. W. Glenn, Jefferson, Jackson Co.,
Flynn Hargett, Jr., Mountain Hill,
G. A. Harrison, Thomaston,
Atticus G. Haygood, Oxford,
Laura A. Haygood, Atlanta,
John W. Heidt, La Grange,
Alice Hodnett, Sandersville,
G. F. Howard, Marietta,
F. J. Ingraham, Excelsior,
John Isham, Atlanta, 41 Crew St.,
Mark Johnson, Atlanta,
W. H. Lawson, Sandersville,
Miss C. H. Loomis, Atlanta,
Miss Bunnie Love, Atlanta,
J. T. McLaughlin, Talbottom,
R. D. Mallary, Rome,
Mrs FRANCES C. MALLON, Atlanta,
J. H. Martin, Atlanta,
Katie B. Massey, Atlanta,
A. Means, Oxford,
T. A. E. Means, Atlanta,
Mrs. S. B. Merrill, Atlanta,
James Mitchell, Atlanta,
H. C. Mitchell, Atlanta,
Edwin G. Moore, Atlanta,
A. P. Mooty, Columbus,
Mrs. W. M. Moses, Sandersville,
Walter E. Murphey, Waverly Hall,
Jno. Neely, Americus,
A. B. Niles, Griffin,
J. Norcross, Atlanta,
Wm. J. Noyes, Cedartown,
Gustavus J. Orr, Atlanta,
V. E. Orr, Sparta,
Wm. L. C. Palmer, Lincolnton,
Sophia B. Packard, Atlanta,
Robert E. Park, Macon,
C. L. Patton, Atlanta,
Miss K. Pendleton, Atlanta,
J. J. Rucker, Georgetown,
S. P. Sanford, Macon,
Mary L. Santley, Atlanta,
W. M. Saye, Coosa,
Nettie C. Sergeant, Atlanta,
William M. Slaton, Atlanta,
W. F. Slaton, Atlanta,
Mrs. A. N. Smith, Atlanta,
T. F. Smith, Chauncey,
J. C. Solomon, Bullard's Station,
Miss L. E. Thomas, Macon,
Doctor F. C. Timmons, Social Circle,
Hugh F. Train, Savannah,
Henry H. Tucker, Atlanta,
Mrs. Susan R. S. Walsh, Atlanta,
Edmund A. Ware, Atlanta,
Nicholas E. Ware, Sharon,

Mary J. Johnson, Atlanta,
Mattie Jones, Atlanta,
Paleman J. King, Cave Spring,
Mrs. Clara C. Knight, Atlanta,
Stanley E. Lathrop, Macon,
W. Clay Wilkes, Gainesville,
Mrs. D. T. Wilson, Americus,
W. H. Woodall, Barnesville,
William Price Woolley, Atlanta,
B. M. Zettler, Macon.

ILLINOIS.

Robert Allyn, Carbondale,
A. G. Farr, Chicago,
James P. Slade, Springfield.

INDIANA.

John M. Bloss, Indianapolis,
J. V. Coombs, Ladoga,
Miss N. Cropsey, Indianapolis,
Isabel King, Indianapolis,
Lemuel Moss, Bloomington,
Mrs. Carrie Puterbaugh, Peru,
J. H. SMART, Indianapolis,
H. S. Tarbell, Indianapolis,
L. S. THOMPSON, Lafayette,
E. E. WHITE, Lafayette,
Wm. H. Wiley, Terre Haute,
Wm. S. Wood, Seymour.

IOWA.

J. C. GILCHRIST, Cedar Falls,
J. L. Pickard, Iowa City.

KANSAS.

H. C. Speer, Topeka,
George M. Stearns, Topeka.

KENTUCKY.

J. E. Dorland, Louisville,
Samuel P. Lucy, Midway,
Lucius G. Marshall, Cynthiana,
A. W. Mill, Glasgow,
Joseph Desha Pickett, Frankfort,
A. Spencer, Versailles,
T. C. H. Vance, Lexington.

LOUISIANA.

Edwin H. Fay, New Orleans,
Wm. O. Rogers, New Orleans.

MARYLAND.

M. A. NEWELL, Baltimore.

MASSACHUSETTS.

Charles H. Ames, Boston,
Thomas W. Bicknell, Boston,
Carrie A. George, Worcester,
W. T. HARRIS, Concord,
W. I. Marshall, Fitchburg,
A. P. Stone, Springfield,
Charles O. Thompson, Worcester.

MINNESOTA.

Jerome Allen, St. Cloud,
W. W. Folwell, Minneapolis,
C. W. Smith Minneapolis.
O. V. Tousley, Minneapolis,
B. F. Wright, St. Paul.

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J. Fairbanks, Springfield,
T. R. Vickroy, St. Louis,
F. LOUIS SOLDAN, St. Louis.

MISSISSIPPI.

J. M. Barrow, Columbus.

NEBRASKA.

W. W. W. Jones, Lincoln,
S. R. Thompson, Lincoln.

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Josephine E. Hodgdon, Concord.

NEW YORK.

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EDWARD DANFORTH, Elmira,
Geo. W. Edwards, Syracuse,
Neil Gilmour, Albany,
Parmenas B. Hulse, New York,
A. McMillan, Utica,
Geo. A. Plimpton, New York,
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C. W. Bennett, Piqua,
Miss C. S. Burnett, Brookfield,
J. J. BURNS, Chillicothe,
W. A. Clark, Manchester,
DANIEL F. DE WOLF, Columbus,
John W. Dowd, Toledo,
Etta L. Dunlap, Danville, Knox Co.,
Henry H. Fick, Cincinnati,
T. C. Flanegin, Pomeroy,
Kate Franklin, Cleveland,
Samuel Findley, Akron,
J. M. Goodspeed, Athens,
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T. J. McCalmont, College Hill,
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Bertha S. Reckley, Hillsboro,
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Wm. H. Scott, Athens,
Margaret W. Sutherland, Mansfield,
Eli T. Tappan, Gambier,
H. A. Thompson, Westerville,
Percie A. Trowbridge, Cleveland,
Edward Truman, Burton,
G. W. Walker, Lima,
J. M. Yarnell, Barnesville.

PENNSYLVANIA.

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Gustavus Guttenburg, Erie,
H. S. Jones, Erie,
EDGAR A. SINGER, Philadelphia,
J. P. WICKERSHAM, Harrisburg.

RHODE ISLAND.

William A. Mowry, Providence.

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Lewis M. Ayer, Anderson,
J. F. Brown, Santuck,
R. Means Davis, Winnsboro,
Virgil C. Dibble, Charleston,
Cara Featherston, Belton,
W. M. Grier, Due West,
L. B. Haynes, Columbia,
Geo. C. Hodges, Ninety-Six,
Geo. W. Holland, Newberry,
C. A. Judson, Greenville,
S. Lander, Williamston,
Kathleen Lander, Williamston,
M. B. McMaster, Woodward,
Ella Smith, Pendleton,
Hugh S. Thompson, Columbia,
A. S. Townes, Greenville,
R. B. Turnipseed, Columbia.

Tennessee.

Lizzie L. Bloomstein, Nashville,
Clara Carpenter, Chattanooga,
Sallie B. Erwin, Nashville,
Henry R. Lang, Nashville,
Eben S. Stearns, Nashville,
H. D. Wyatt, Chattanooga,
Mrs. H. D. Wyatt, Chattanooga.

Texas.

Alexander Hogg, Marshall.

Virginia.

W. B. Kendrick, Gordonsville,
W. H. Ruffner, Richmond.

Wisconsin.

W. C. Whitford, Madison.

NAMES ENROLLED AT ATLANTA,

ARRANGED ALPHABETICALLY.

A.

Abernethy, J. H., Ga.,
Adams Robert, Ga.
Allen, Jerome, Minn.,
Allyn, Robert, Ill.,
Ames, Chas. H., Mass.,
Andrews, Israel W., Ohio,
Armstrong, H. C., Ala.,
Ashmore, Otis, Ga.,
Atkinson, T. E., Ga.,
Ayer, Lewis M., S. C.

B.

Baker, W. H., Ga.,
Barnett, Samuel, Ga.,
Barrow, J. M., Miss.,
Bass, Wm. A., Ga.,
Beck, J. W., Ga.,
Bemus, Geo. H., Ala.,
Bennett, C. W., Ohio,
Bicknell, Thos. W., Mass.,
Bleckley, L. E., Ga.,
Bloomstein, Lizzie L., Tenn.,
Bloss, John M., Ind.,
Bonnell, W. B., Ga.,
Bowen, Eliza A., Ga.,
Boynton, James S., Ga.,
Bragg, Thomas C., Ala.,
Brinkley, Alice., Ga.,
Brinkley, Sterling G., Ga.,
Brown, Joseph E., Ga.,
Brown J. F., S. C.,
Brown, Mrs. Belle, Ga.,
Brown, S. J., Ga.,
Burnett, C. S., Ohio,
Burns, Jas. A., Ga.,
BURNS, J. J., Ohio.

C.

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Campbell, Wm. O., New York,
Candler, Miss S. S., Ga.,
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Carter, L. H., Ga.,
Chappell, J. Harris, Ga.,
Chase, Mrs. Thos. N., Ga.,
Clark, W. A., Ohio,
Connor, W. O., Ga.,
Coombs, J. V., Ladoga, Ind.,
Cooper, J. A., Pa.,
Crogman, Wm. H., Ga.,
Cropsey, Miss N., Ind.

D.

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Davis, Means R., S. C.,
Dews, Geo. M., Ga.,
DEWOLF, D. F., Ohio,
Dibble, Virgil C., S. C.,
Dickey, F. C., Ga.,
Dorland, J. E., Ky.,
Dowd, J. W., Ohio,
Duggan, Ivy W., Ga.,
Dunklin, J. T., Ala.,
Dunlap, Etta L., Ohio.

E.

Eaton, John, D. C.,
Edwards, Geo. W., New York,
Edwards, Mrs. M. E., Ga.,
Erwin, Sallie B., Tenn.

F.

Fairbanks, J., Mo.,
Fambrough, Wm. B., Ga.,
Farr, Albert G., Ill.,
Fay, Edwin H., La.,
Featherston, Cara, S. C.,
Fick, Henry H., Ohio,
Field, Miss L. A., Ga.,
Findley, Samuel, Ohio,
Fish, J. M., Ark.,
Flanegin, T. C., Ohio,
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Foster, E. K., Florida,
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Franklin, Kate, Ohio.

G.

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Gibbs, Miss N. C., Ala.,
Giesler, W. H., Ala.,
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Gilmour, Neil, New York,
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Goodspeed, J. N., Ohio,
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Guttenburg, Gustavus, Pa.

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Harvey, Thomas W., Ohio,
Haygood, Atticus G., Ga.,
Haygood, Laura A., Ga.,
Haynes, L. B., S. C.,
Heidt, John W., Ga.,
HENKLE, W: D., Ohio.
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Hodges, Geo. C., S. C.,
Hodnett, Alice, Ga.,
Holland, G. W., S. C.,
Horney, Thomas W., Ohio,
Hogg, Alexander, Texas,
Howard, G. F., Ga.,
Hulse, Parmenas B., New York.

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Isham, John, Ga.

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Jones, H. S. Pa.
Jones, Mattie, Ga.,
Jones, W. W. W. Neb.,
Judson, C. A., S. C.

K.

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King, Isabel, Indiana,
King, Paleman J., Ga.,
Knight, Mrs. Clara C., Ga.

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Lander, S., S. C.,
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Lathrop, Stanley E., Ga.,
Lawson, W. H. Ga.,
Loomis, Miss C. H., Ga.,
Love, Bunnie, Ga.,
Lucy, Samuel, P., Ky.,
Lukens. Joseph F., Ohio.

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McLaughlin, J. T., Ga.,
McMaster, M. B., S. C.,
McMillan, A., New York,
Mallary, R. D., Ga.,
MALLON, MRS. FRANCES C., Ga.,
Marshall, Lucius G., Ky.,
Marshall, W. I., Mass.,
Martin, J. H., Ga.,
Massey, John, Ala.,
Massey, Katie B., Ga.,
Means, A., Ga.,
Means, T. A. E., Ga.,
Merrill, Mrs. S. B., Ga.,
Mill, A. W., Ga.,
Mitchell, H. C., Ga.,
Mitchell, James, Ga.,
Moore, Edwin G., Ga.,
Mooty, A. P., Ga.,
Moses, Mrs. W. M., Ga.,
Moss, Lemuel, Ind.,
Maxdon, G. W., Ala.,
Mowry, W. A., R. I.,
Murphy, Walter E., Ga.

N.

Neely, John, Ga.,
NEWELL, M. A., Md.,
Niles, A. B., Ga.,
Norcross, J., Ga.,
Northrop, B. G., Conn.,
Noyes, W. J., Ga.

O.

Orr, Gustavus J., Ga.,
Orr, V. E., Ga.

P.

Packard, Sophia B., Ga.,
Palmer, W. L. C., Ga.,
Parker, H. M., Ohio,
Park, Robert E., Ga.,
Patton, C. L., Ga.,
PEASLEE, JOHN B., Ohio,
Pendleton, Miss K., Ga.,
Pickard, J. L., Iowa.
Pickett, Joseph Desha, Ky.,
Pinney, Mrs. Lucy D., Ohio,
Plimpton, G. A., New York,
Pollock, Mrs. Louise, D. C.,
Pollok, T. A., Ohio,
Powers, J. K., Ala.,
Puterbaugh, Mrs. Carrie, Ind.

R.

Reckly, Bertha S., Ohio,
RICKOFF, A. J., Ohio,
Rogers, Wm. O., La.,
Rucker, J. J., Ga.,
Ruffner, W. H., Va.,
Rusk, T. R., Ala.,
Russell, A. J., Florida,
Russell, O. F., Arkansas.

S.

Saye, W. M., Ga.,
Sanford, S. P., Ga.,
Santley, Mary L, Ga.,
Scott, Wm. H., Ohio,
Sergeant, Nettie C. Ga,
Shields, Mary S., D. C.,
SINGER, EDGAR A., Pa.,
Slade, J. P., Ill.,
Slaton, Wm. N., Ga.,
Slaton, W. F., Ga.,
SMART, J. H., Ind.,
Smith, Ella, S. C.,
Smith, C. W., Minn.,
Smith, Mrs. A. N., Ga.,
Smith, T. F., Ga.,
SOLDAN, F. L., Mo.,
Solomon, J. C., Ga,
Speer, H. C., Kan.,
Spencer, A., Ky,
Stearns, Eben S., Tenn.,
Stearns, George M., Kan.,
Stephenson, James M., Ala.,
Stone, A. P., Mass.,
Sutherland, Miss M. W., Ohio.

T.

Tappan, Eli T., Ohio,
Tarbell, H. S., Ind.,
Thomas, Miss L. E., Ga.,
Thompson, Charles O., Mass.,
Thompson, Hugh S., S. C.,
Thompson, H. A., Ohio,
THOMPSON, L. S., Ind.,
Thompson, S. R., Neb.,
Timmons, Doctor F. C., Ga,
Tousley, O. V., Minn.,
Townes, A. S., S. C.,
Train, Hugh F., Ga,
Trowbridge, Pernie A., Ohio,
Truman, Edward, Ohio,
Tucker, Henry H., Ga.,
Turnipseed, R. B., S. C.

V.

Van Aiken, Mrs. Georgiana, N. Y.,
Vance, T. C. H., Ky.,
Vickrey, T. R., Mo.

W.

Walker, G. W., Ohio,
Wallace, Hamilton, Cal.,
Walsh, Mrs. Susan R. S., Ga.,
Ware, Edmund A., Ga,
Ware, Nicholas E., Ga.,
WHITE, E. E., Ind.,
Whitford, W. C., Wis.,
WICKERSHAM J. P., Penn.,
Wiley Wm. H., Ind.,
Wilkes, W. Clay, Ga.,
Wilson, Mrs. D. T., Ga.,
Wilson, W. W., Ala.,
Witmer, Tobias, New York,
Woodall, W. H., Ga.,
WOODWARD, G. A., Ala.,
Wood, W. S., Ind.,
Woolley, Wm. Price, Ga.,
Wright, B. F., Minn.,
Wright, Homer, Ala.,
Wyatt, H. D., Tenn.,
Wyatt, Mrs. H. D., Tenn.

Y.

Yarnell, J. M., Ohio.

Z.

Zettler, B. M., Ga.

BOARD OF DIRECTORS.

Proceedings for 1881.

OLD BOARD.

The Board met at 8 P. M., July 18, 1881, at the Markham House, Atlanta, President JAMES H. SMART, in the chair.

H. C. SPEER, W. W. W. JONES, HUGH S. THOMPSON, E. K. FOSTER, EDWIN H. FAY, and WILLIAM A. MOWRY were invited to sit with the Board.

The Treasurer made his report of the receipts and expenses of the past year. The report was referred to an auditing committee, A. J. RICKOFF, E. A. SINGER, and J. C. GILCHRIST.

J. P. WICKERSHAM reported the failure to obtain an act of Congress to incorporate the Association. The report was accepted and the committee discharged. On motion of J. C. GILCHRIST, a committee was appointed with power to take such steps as they judge best to have this Association incorporated. Committee: J. P. WICKERSHAM, J. O. WILSON, and M. A. NEWELL.

On motion of E. E. WHITE it was resolved that three trustees be appointed under Section 9, Article IV. of the Constitution, to serve for three years and until their successors are appointed, and that the penal sum of the bond to be required be one thousand dollars. On motion of W. T. HARRIS, a committee was appointed to nominate the trustees. Committee: E. E. WHITE, G. J. ORR, and LOUIS SOLDAN. On motion of W. T. HARRIS a committee was appointed in respect to printing reports of the Council. Committee: W. T. HARRIS, and J. P. WICKERSHAM.

Adjourned to meet at the call of the President.

The Board met at the Markham House at 10 P. M. July 20.

The committee to audit the Treasurer's account reported it correct. Report accepted.

THOMAS W. BICKNELL and J. W. DICKINSON were elected members of the Council of Education.

E. E. WHITE reported that trustees could not be found. The committee was discharged.

On motion of JOHN EATON a vote of thanks was tendered to EDWARD DANFORTH, committee on Transportion.

Adjourned.

NEW BOARD.

The New Board met immediately after the adjournment of the Old Board. President, G. J. ORR.

Invitations for the next meeting of the Association were received from Dallas, Texas; from Topeka, Kansas; and from Saratoga, New York. On motion of M. A. NEWELL it was resolved to meet at Saratoga.

On motion of J. P. SLADE the question of time was referred to a committee consisting of W. D. HENKLE, J. P. WICKERSHAM, and E. E. WHITE.

On motion of J. P. WICKERSHAM it was resolved that WILLIAM D. HENKLE, ELI T. TAPPAN, and ANDREW J. RICKOFF be appointed trustees under *Section* 9, Article IV. of the Constitution.

The bills of James H. Smart, Edward Danforth, and Louis Soldan were ordered to be paid.

Adjourned.

The Board met at the Markham House at 11 p. m. July 21st.

The committee on time of next meeting was authorized to arrange a joint meeting with the American Institute of Instruction, at Saratoga, the second week in July next. G. J. Orr and N. A. Calkins were added to the committee.

The bond of the trustees appointed at the last meeting of the Board was presented to the Board, was approved, and was placed in the custody of the Treasurer-elect.

J. Allen, N. A. Calkins, and Edward Danforth were appointed a local committee for the next meeting of the Association.

On motion of J. P. Wickersham only two papers shall be provided for each session, one of which shall be designed to provoke discussion.

Adjourned.

THE NATIONAL EDUCATIONAL ASSOCIATION

In Account with Eli T. Tappan, Treasurer.

The Treasurer charges himself with the following

RECEIPTS:

From	320 annual fees received at Chautauqua or subsequently from persons whose names are given in the last volume..	$640 00
"	W. H. Ruffner, E. C. Hewitt, and W. D. Parker............	6 00
"	25 others received at Sup'ts' Meeting in New York............	50 00
"	20 life-members, Hampton Bennett, Grace C. Bibb, Geo. P. Brown, Leroy D. Brown, Jas. J. Burns, Emily M. Coe, C. C. Davidson, Bettie A. Dutton, J. C. Gilchrist, John Hitz, John S. Irwin, Mrs. S. McMillan, Albert P. Marble, Lewis Miller, Lelia E. Patridge, Rebecca D. Rickoff, Edgar A. Singer, R. W. Stevenson, Esther Widner, and J. O. Wilson..	400 00
"	2 life-members, completing the fees, E. A. Spring and John Kraus, $18 each..	36 00
"	sale of volumes of Proceedings, G. J. Orr, $2.00, John Hitz, $2.00, S. N. Fellows, $1.50, J. P. Slade, $4.25, Ill. Nor. Un., $2.00, B. G. Northrop, $25, J. P. Wickersham, $62.50, N. A. Calkins, $12.50, Comm'r Eaton, $125, and A. B. Hunt, $1.50..	238 25
"	4 months' interest on $200 permanent fund........................	4 00
		$1374 25

The Treasurer charges the Association with the following

PAYMENTS:

1880.				
July	8.	Express charge on tickets	$	85
"	16.	J. C. GILCHRIST for Draft Normal School	6	75
"	16.	W: D. HENKLE, balance of old account	487	64
"	29.	EDWARD DANFORTH, railway com	39	55
		W: D. HENKLE, 1000 volumes Chautauqua Proceedings	856	36
		W: D. HENKLE, incidentals of Chautauqua Meeting	16	15
			$1407	30
Amount overdrawn from Treasury, July 18, 1881			33	45
			$1374	25

REPORT OF AUDITING COMMITTEE.

Examined, compared with the vouchers, and found correct. Atlanta, July 20, 1881.

ANDREW J. RICKOFF,
EDGAR A. SINGER,
J. C. GILCHRIST,
} *Auditing Committee.*

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IN THE CUSTODY OF THE TREASURER, JULY 19, 1881,

Proceedings of	1858,	10	volumes	Price per volume,	$	.50
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" "	1865,	113	"	" " "		.50
" "	1866,	118	"	" " "		.50
" "	1872,	35	"	" " "		1.75
" "	1873,	207	"	" " "		1.50
" "	1874,	416	"	" " "		1.50
" "	1875,	29	"	" " "		1.50
" "	1876,	184	"	" " "		2.00
" "	1877,	140	"	" " "		2.00
" "	1879,	495	"	" " "		2.00
" "	1880,	435	"	" " "		2.00

Any purchaser of a whole set of the proceedings may have each volume of which there are more than 50 copies unsold, for half the price named above—that is, the above seventeen volumes for ten dollars.

CALENDAR OF MEETINGS.

NATIONAL TEACHERS' ASSOCIATION.

1857.—PHILADELPHIA, PA.
Organized.

1858.—CINCINNATI, OHIO.
Z. Richards, *Pres.*, J. W. Bulkley, *Sec.*, A. J. Rickoff, *Treas.*

1859.—WASHINGTON, D. C.
A. J. Rickoff, *Pres.*, J. W. Bulkley, *Sec.*, C. S. Pennell, *Treas.*

1860.—BUFFALO, N. Y.
J. W. Bulkley, *Pres.*, Z. Richards, *Sec.*, O. C. Wight, *Treas.*

1861.—No Session.

1862.—No Session.

1863.—CHICAGO, ILL.
John D. Philbrick, *Pres.*, Jas. Cruikshank, *Sec.*, O. C. Wight, *Treas.*

1864.—OGDENSBURG, N. Y.
W: H. Wells, *Pres.*, David N. Camp, *Sec.*, Z. Richards, *Treas.*

1865.—HARRISBURG, PA.
S. S. Greene, *Pres.*, Jas. Cruikshank, *Sec.*, Z. Richards, *Treas.*

1866.—INDIANAPOLIS, IND.
J. P. Wickersham, *Pres.*, S. H. White, *Sec.*, S. P. Bates, *Treas.*

1867.—No Session.

1868.—NASHVILLE, TENN.
J: M. Gregory, *Pres.*, L. Van Bokkelen, *Sec.*, Jas. Cruikshank, *Treas.*

1869.—TRENTON, N. J.
L. Van Bokkelen, *Pres.*, W: E. Crosby, *Sec.*, A. L. Barber, *Treas.*

1870.—CLEVELAND, OHIO.
D. B. Hagar, *Pres.*, A. P. Marble, *Sec.*, W: E. Crosby, *Treas.*

NATIONAL EDUCATIONAL ASSOCIATION.

1871.—ST. LOUIS, MO.
J. L. Pickard, *Pres.*, W: E. Crosby, *Sec.*, John Hancock, *Treas.*

1872.—BOSTON, MASS.
E. E. White, *Pres.*, S. H. White, *Sec.*, John Hancock, *Treas.*

1873.—ELMIRA, N. Y.
B. G. Northrop, *Pres.*, S. H. White, *Sec.*, John Hancock, *Treas.*

1874.—DETROIT, MICH.
S. H. White, *Pres.*, A. P. Marble, *Sec.*, John Hancock, *Treas.*

1875.—MINNEAPOLIS, MINN.
W: T. Harris, *Pres.*, W. R. Abbot, *Sec.*, A. P. Marble, *Treas.*

1876.—BALTIMORE, MD.
W: F. Phelps, *Pres*, W: D. Henkle, *Sec.*, A. P. Marble, *Treas.*

1877.—LOUISVILLE, KY.
M. A. Newell, *Pres.*, W: D. Henkle, *Sec.*, J. Ormond Wilson, *Treas.*

1878.—No Session.

1879.—PHILADELPHIA, PA.
John Hancock, *Pres.*, W: D. Henkle, *Sec.*, J. Ormond Wilson, *Treas.*

1880.—CHAUTAUQUA, N. Y.
J. Ormond Wilson, *Pres.*, W: D. Henkle, *Sec.*, E. T. Tappan, *Treas.*

1881.—ATLANTA, GA.
Jas. H. Smart, *Pres.*, W: D. Henkle, *Sec.*, Eli T. Tappan, *Treas.*

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WILLIAM D. HENKLE, Salem, Ohio, - - Secretary.
HORACE S. TARBELL, Indianapolis, Ind., - - Treasurer.
[For other Vice-Presidents, and Counsellors see p. 87.]

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N. A. CALKINS, New York, N. Y., - - - Vice-President.
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S: R. THOMPSON, Lincoln, Neb., - - - Secretary.

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JAS. P. WICKERSHAM, Lancaster, Pa., - - Vice-President.
E. E. WHITE, Lafayette, Ind., - - - - Secretary.
D. C. GILMAN, W: H. RUFFNER, JOHN HANCOCK,
and J. L. PICKARD, - - - - Executive Committee.

FIFTH ANUAL MEETING

OV THE

SPELING-REFORM ASOSHIASHUN.

The Asoshiashun met az a Department ov the Nashunal Educashunal Asoshiashun at Atlanta, Ga., July 19 and 20, and held its meetingz in DeGive's Opera Hous.

In the absens ov Prezident March, the meetingz wer prezided over by Vise-Prezident W. T. Harris, LL. D., ov Concord, Mass.

The opening adres was prepard by Prof. F. A. March, LL. D., and in hiz absens was red by Prof. J. C. Gilchrist, prezident ov the Iowa State Normal Scool.

THE OPENING ADRES.

Anuther year and agen we ar abl tu report progres. This asoshiashun was formd at an International convention in our sentenial year, 1876.

In 1877 we wer abl tu congratulate ourselvz on the wunderful progres made in awakening the jeneral public tu the badnes ov the old speling.

In 1878 we reported the beginingz ov our constructiv wurk. We had agreed on a niu alfabet, and a method ov progres toard its yus.

In 1879 we held our anyual meeting az a department ov the Nashunal Educashunal Asoshiashun, and our report ov progres dwelt much on the opening ov our periodical literature tu the discushun and ilustrashun ov the reform.

In 1880 at Chatauqua the main topic ov congratulation waz the introducshun ov amended speling intu the niuzpaperz, and uther publicashunz, and the great aray ov authoritiz in leterz and siens, hu had givn the reform their sancshun.

This year our progres haz bin quiet rather than efuljent. Ther haz bin nuthing sensational about it. This iz in the nature ov the case. After an invasion haz bin made and the great folk fights hav bin faut ther must folo quiet yearz ov hard and obsciur labor in ocyupying the conquerd teritori. After Newton haz discuverd the law ov the univers a thouzand pashent wurkerz must spend quiet livez in calciulating the aplicashun ov the lawz tu the comun facts around us.

We shud not luze hart, therfore, if the jeneral public interest in our wurk seemz les ecsited than at furst, but go stedili forward under the ashurans that reazn and economi ar purmanent forsez that wurk always and outliv al prejudisez. Amung the ashuring facts ov the past year may be menshund the frequent apearans in the most conservativ and influenshal publicashunz ov incidental pasejez which speak ov the speling reform az a mater ov interest and importans, and say a pasing wurd or tu for it. Such may hav bin notist in the *North American Review,* the *American Church Review,* the *Atlantic Monthli,* the *Fortnightly Review, Wide Awake,* the *Christian Life* and the like.

Notisabl articlz in favor ov the reform hav apeard in the *Independent,* the *Home Journal, Good Literature,* and elswher.

Prof. WHITNEY haz givn us an articl in the *Independent,* and Prof. MAX MULLER introdiusez intu a niu volyum ov hiz, "Chips from a German Workshop," hiz elaboret articl in favor ov the reform, which furst apeard in the *Fortnightly.* He now prints it in fonetic speling.

The gradyual impruverz may count this year az a fairly gud wun.

The interest in this kind ov a reform iz so great that the Filolojical Sosieti ov London haz bin indiust by meni apealz tu take up the mater in ernest and apoint a comiti tu report upon it. Mr. SWEET, the wel-non leader ov Anglo-Saxon scolarship in England, haz lately made the report. The pamflet containing it iz entitled "Parshal Corecshunz ov English Spelingz, recomended by the Filolojical Sosieti for imediet adopshun." Ther ar thirti-three pajez ov it made up larjli ov lists ov wurdz tu be amended. The great bodi ov the amendments proseed on historical or etimolojical groundz, such az hav bin ilustrated in this articl. Most ov them consist in the droping ov silent leterz. Silent *e* iz the greatest ofender. Ther ar sumthing like twenti counts in the inditement agenst it, twenti lists ov spesificashunz, sum ov them long. The furst ar wurdz in which *e* iz foneticali misleading az being yuzd after a short vowel and singl consonant. It iz regularli an orthografic expedient in such a position tu denote a long vouel; *have* for exampl ought by gud right tu rime with *slave, rave, brave, grave,* and the like; so *give* shud rime with *hive, strive, alive.* The verb *live* iz rong tu. Ther ar hosts ov such wurdz, *medisin, doctrin, genuin, definit, infinit, granit,* and so on. Then ther ar lists in which an *e* iz simpli yusles, az the length ov the preseeding vouel iz plain without it, as in *believe, grieve,* wher the digraf shoz the length; or in *carve, nerve,* wher the consonants ar a sufishent gide. It iz advized tu change *-re* tu *-er, centre* tu *center, theatre* tu *theater.* With such backing this impruvment wil no longer figyur az an Americanizm or a Websterizm. We ar tu drop the *e* ov *-le* in meni wurdz *assembl, axl, coupl, beadl,* and the like, and in the terminashunz *-able, -ible,* and *-icle* az in *probabl, credibl, articl.* It wil take us a long time tu get rid ov all theze *e*'s.

Meantime we can be going on with impruvments. The filolojists, or at least Mr. SWEET, wil hav it that for *leopard* and *jeopardy* the older spelingz *lepard, jepardy* shal be restord; *yeoman* shud be *yoman.* The unhistorical *i* ov *parliament* shud be dropt. The old English and old French *u* shud be restord in *guvern* (gubernator), *munkey, tung, wunder, wurm,* and a long list ov wurdz now spelt with an *o.* The orijinal *i* shud be restord in *wimen* (women). A long list ov wurdz with a modern *ou* shud go back tu their historic *u*; *jurney* (journey), *dubl* (double), *cuntry, nurish,* and the like; *enough, rough,* and *tough* ought tu be *enuf, ruf,* and *tuf;* and *through, thruh,* or beter stil *thru.*

After *g, u* iz rong in nativ English wurdz like *gard* (guard), *gardian, garantee,* and so *ue* in *catalog* (catalogue), *demagog, dialog, harang* (harangue) and the like. The report also informz us that wurdz ending in dubl *b*, *d*, *g*, *n*, *r*, *t*, ar rong; we shud rite *eb* (not *ebb*), so *ad* (not *add*), *eg* and *pur* for *egg* and *purr*. A great meni wurdz derived from Anglo-Saxon ar spelt incorectli with dubl consonants tu make them look like Latin: *a front* iz spelt intu *affront*, *a faire* intu *affair*, *a-forthian* intu *afford*, *a-cursod* intu *accursed*, as tho they wer compounded with Latin *ad*, and the list iz long. A silent *b* has bin aded without rime or reazon tu meni wurdz: *crumb*, *numb*, *limb*, *thumb*, and for a very bad reazon tu a gud meni more; thoz nameli in which the Latinists hav in modern timez inserted it az a reminder ov the Latin wurd from which it orijinali came; *dout* (doubt), *det* (debt), for exampl, had lost the *b* of the Latin *dubit-o* and *debit-* in the French from which the old English came; *doubt* and *debt* ar unhistoric, sins they wud teach that we tuk them from the Latin insted ov the French. Meni timez *ch* iz rong thru the blunderingz ov the Greeklingz; *ake* iz the tru old speling ov *ache*, as WORCESTER taks care tu inform us; *anker* haz forgoten its Greek and masquerades az *anchor*; *c* for *s* iz comun; in *cinder*, old English *sinder*, fancied tu be from the French *cendre*; *pence* wher *c* iz for the plural sign *s*; *once* wher *c* iz for the jenativ *s*, and the like.

Sovereign iz anuther blunder ov the Latinists, hu imajind it tu be a compound ov *regn-o*, tu reign, insted ov the adjectiv *superan-us*. MILTON's *sovran* haz plezant asoshiashuns, but Mr. SWEET brandz it az "hybrid Italian speling." He givz us *sovrein*, but that iz an anacronism. The wurdz which in erli English wer spelt *-ain* and *-ein* from French *-ain* hav either taken *ain* exclusivly, which iz the comun fact, or *-en* az *citizen*, *denizen*, *dozen*, *suden*, or *-an* az *human*. The best historical speling iz *suveren*. So *foren* (foreign). Anuther trublsum intruder iz *gh*; it iz thrust in by pure blunder in *sprightly*, *delight*, and *haughty*, in old timez *spritely*, *delite* and *hauty*; and it iz a modern variashun ov *h* in meni wurdz wher both ar now yusles; *plough*, for exampl, *though*, *through* and *thorough*, az wel az *daughter*, *straight*, *weight* and the like. Why shud not *receit* be riten az it yuze to be, like *conceit*, *deceit* and the like? So far az the *p* ov *recept-us* iz concerned, it iz needed in wun no more than in the utherz. In *tch*, *t* iz ov no yus; *which* iz az plain as *pitch*, and the *t* iz unetimolojical in al such wurdz.

Az long az the erli English waz not studid, and Latin and Greek wer, ther waz a constant starting by the students ov Latin and Greek ov mistaken etimolojiz ov this sort. It iz onli within the last ten or fifteen yearz that the studi ov erli English haz becum jeneral, and thez mistaken etimolojiz made familyar. But an Anglo-Saxon scolar canot rite theze modern blunderz without a protest. And the Anglo-Saxon scolarz ar becuming numerus. No branch ov studi haz so gron in favor within the last ten yearz. Ther ar fiu, if eni, ov our wel-mand colejez without a cors in it, and it iz fast spreding in our high scoolz and academiz. Theze etimolojiz ar becuming part ov the comunplasez ov the scool-room. They hav alredi reacht the popular dicshuneriz. The niu edishun of WORCESTER, our great conservativ authoriti on pronunshiashun and speling, haz them faithfuli recorded. And this perhaps iz the most important tokn ov progres during the year. This great buk haz bin for twenti yearz the favorit authoriti ov the litereri magnates in pronunshiashun and speling. Here we lernd how Mr. EVERETT pronounst and how the Harvard men wer directed tu spel. The niu edishun shoz us what progres haz bin made ther in the studi ov old English. It givz us the old formz ov wurdz which hav bin transformd by ignorant Latinists and Greeklingz. It iz geting tu be *recherche*, gud form, Worcesterish, tu rite the corect old formz. Thus *iland* iz givn in its proper plase, and described az the erlier and corect speling ov *island*; and under *island* we find the same statement repeated, with the informashun that the *s* iz ignorantli inserted thru confuzing it with *isle*, a French wurd from Latin *insula*. *Rime* iz given in its proper plase az the corect speling ov *rhyme*, and it iz explaind that *rhyme* iz a modern blunder, started by the noshun that it iz a Greek wurd like *rhythm*. *Ake* also iz restord, and *ache* turned over tu the Greeklingz, So *sithe*, which haz bin disgized az *scythe*, our Worcester thinks, from an impreshun that it waz from Latin *scindo*. MILTON'z *sovran* iz down az the tru speling ov *sovereign*, an outgroth ov the idl fansi that the wurd waz compounded with *reign*. We ar informd that *coud* iz the older and beter form ov *could*. The *l* iz an "excresens" diu tu the influens ov *would* and *should*. The *Tatars* also recover here from the French king's pun by which they wer made fiendz ov *Tartarus*; and so *glamour*, and *whole*, and *shame-faced* and uther like etimolojical blunderz ar branded az they dezerv.

Theze ar spesimens ov the reform demanded if we ar tu hav our langwej acuret in its etimoloji. Wurd by wurd theze corecshuns may al be made in popular print without making it unintelijibl or even embarasing. It iz quite az likeli that the next jenerashun wil see them jenerali made az it waz that our jenerashun shud see so meni ov WEBSTER's corecshunz adopted.

WEBSTER sucseeded in reforming the speling ov the Latin wurdz. The teacherz and litereri men hu control the speling, with the advise and consent ov the printerz, niu that the Latin *musica* haz no *k* in it, and *honor* no *u* in it; economi bakt by etimoloji demanded the droping ov the *k* and *u*. The same reazonz urj our jenerashun tu drop the *s* ov *iland* and the *l* ov *coud*, and it seemz imposibl that the blunderz can hold their ground much longer.

They hav, in fact, alredi givn way. In adishun tu what haz bin sed about the Filolojical Sosieti and the dicshuneriz, it wil, ov cors, be rememberd that the proseedingz ov the Nashunal Educashunal Asoshiashun for last year containd twelv paperz, which wer printed at the request ov their authorz in amended speling, acording tu a sceme prepaird by its lerned secreteri, Prof. Henkle. No wun can weigh the namz ov the authorz ov theze paperz without feeling that authoriti iz on the side ov imediet impruvment in speling. The paperz ar az foloz :

Modeling in the Public Scoolz and in the Kindergarten, by E. A. Spring; The Development ov the Superintendency, by C. F. Adams, Jr.; Text-Buks and their Usez, by W. T. Harris; From Pestalozzi tu Froebel, by W. N. Hailman; The Relashun ov Educatorz tu Speling Reform, by F. A. March; Scolarships, by J. L. Pickard; Equivalentz in a Liberal Cors ov Studi, by W. T. Harris; Adres by J. C. Gilchrist; Sum ov the Obstrucshunz, Natural and Interpozd, that Rezist the Formashun and Groth ov the Pedagojic Profeshun, by G. P. Brown; The Practical Use ov Referens Buks, by Mary W. Hinman; What Shud We Seek tu Acomplish in the Reading Exercise, by E. O. Vaile; Tecnical Instrucshun in the Land-Grant Colejez, by J. M. Gregory. Az tu the uther divisions ov our wurk, the promoting ov pure fonetic speling, much haz bin dun during the year both in perfecting our sientific speling and in preparing for scool instrucshun.

The experiments which hav bin so dilijentli prosecuted in England and in this cuntri tu determin the best practical alfabetic riting for English ar not ov a nature tu be set forth in a paper like this. The wurk in this cuntri haz bin dun mainli by our indefatigabl and injenius manajer, Mr. Vickroy, hu can expound the detailz if the Sosieti shal be interested tu hear them.

Wun thing iz ov speshal interest tu us; the more the English experiment the nearer they draw tu the ideal alfabet propozd by the American Filolojical Asoshiashun.

It wer much tu be dezired that we cud recount more progres in the scoolz, in the introducshun ov text-buks tu teach the beginingz ov reading and speling. For this, after al, iz our great wurk. The impruvment ov our langwej for filolojists so that they can more ezili discuver and record the laws of langwej and prezerv the histori ov wurdz with acuresi, iz, indeed, a wurthi object. The remuval ov the oprobrium which rests on our scolarz for continuing tu yuz such an iregular, anomalus, contradictori insolyubl set ov puzlz az our wurdz ar, iz sumthing, but the real power that impels this reform iz the relief ov the masez ov the pepl from the labor ov lerning our speling.

The prevailing interest in speling iz not tu be found in historical or etimolojical considerashunz—a hundred etimolojists, a milyun men and wimen. Ther never waz a more unholsum sentiment than that often atributed tu Archbishop Trench, that it iz unscolarli tu yield the peculyar advantej ov the student in the old speling for the sake ov the ignorant and uneducated, stigmatizing it most untruli az leveling down and not leveling up. That iz not the way in which American scolarz think or speak. "It iz not wurth while," sez Prof. Hadley, "for the benefit ov scolarz tu impoz hevi burdenz upon the wurld at larj." "It iz much more an aristocratic luxuri," sez Prof. Whitney, "than a popular benefit." * * Such a satisfacshun iz a selfish wun, and improperli and rongli obtaind if not by a sacrifize ov eni mezhur or conveniens or advantej tu the great public ov speakerz and riters." Nor, in truth, iz the langwej ov Englishmen diferent. "If we can save the toiling multitude," sez Sir Charles Reed, speaking ov this mater at the Lundun conferens, "we ar bound tu du it." And so Matthew Arnold, Dr. Angus, and the rest; and Prof. Max Muller, hu, whether he be German or English, noz how tu rite English and expresez the thots ov Englishmen: "Sureli the los ov sum historical and etimolojical *souvenirz* wud be litl agenst the hapines ov milyunz ov Englishmen and Englishwimen, groing up az the heirz tu al the welth and strength ov English literachur, or unabl tu read even their own Bible."

The jeneral adjustment ov the alfabet must be made in the scoolz. It canot be expected that eni jenerashun hu hav lernd the prezent speling wil adopt a radicali reformd wun for their own yus. But they may be wiling tu have it taut tu their children.

In this direcshun also great progres haz bin made in our best scoolz and more iz at hand. The old methodz ov teaching beginerz tu read hav givn plase in our beter scoolz tu utherz, which in wun form or anuther make yus ov fonetic speling. Text-buks ar prepard with modified leterz which complete the alfabet and serv az go-betweens for the niu and the old. Wurdz ar spelt by soundz. Reading mater iz prepard in which onli thoze wurdz ar yuzd huz speling iz regular. By theze and uther helps, haf the time iz savd which yuzd tu be givn tu the beginingz ov reading and speling.

Perhaps ther iz no beter wurk which speling reformerz can du than tu extend the nolej and yuz ov theze impruvd text-buks ov reading and speling. Their progres iz veri slo. Tho they hav bin sum fifteen yearz in yuz in our senterz ov educashun, they hav made almost no progres in the comun scoolz ov the rural districts. The infant teacherz ar least ov al teacherz prepard tu take up niu wayz. A litl efort on the part ov superintendents wud rapidli bring the impruvd methodz intu jeneral yus and giv us a jenerashun taut the beginingz ov reading in a reazonabl fashun. The jenerashun taut in this way wil be redi tu urj the next tu go further; and so, by and by, the gud time wil be here when reading and riting English wil almost cum by nature.

Uther practical reform wurk near at hand may be found in extending the circulashun ov our periodicalz and helping toardz the printing ov the revized Niu Testament in amended speling by Dr. VICKROY.

The most important duingz ov the speling reformerz in England hav alredi bin menshund. The report ov the Filolojical Sosieti on amended spelingz and the discushun ov the alfabet by the Speling Reform Asoshiashun; they ar now where we wer five yearz ago.

In Germani also ther haz bin progres. The German ofishal reform iz stil a mater ov continual discushun. A niu magazine ov cosmopolitan ambishun haz bin started. It iz tu be the sentral organ ov orthografical reform for the wurld, and haz corespondents in meni cuntriz. It shows much interest in American reform. *Zeitschrift fuer Orthografi* iz its name and it iz edited by Dr. WM. VIETOR ov Viesbaden. It iz tu be hopt we may soon be abl tu send him our English Bible in regular and reazonabl speling.

I canot cloz without menshun ov the los we hav sufferd in the deth ov Prof. HALDEMAN. He waz wun ov the most eminent and efishent suporterz ov the reform. He waz a member ov the furst comiti raizd by the American Filolojical Asoshiashun in 1875 tu consider the reform ov English speling. He prezided over the Internashunal convenshun at Philadelphia in 1876, and tuk an activ part in shaping its proseedingz. He was wun ov the furst vise-prezidents ov the Speling Reform Asoshiashun. He also servd on the comiti on the alfabet and on niu speling. He waz a regular atendant on al acsesibl meetingz, alwayz contributing paperz and taking most liveli part in al discushunz. He also contributed freeli with hiz pen and hiz muni tu the advansment ov the cauz in everi direcshun. Several ov hiz paperz ar printed in our proseedingz and buletinz. He waz strongli in favor ov pushing for the thuro adopshun ov the continental valuz ov our leterz.

Dr. HALDEMAN waz an eminent sientist az wel az filolojist. But he waz best non, at least in Europe, by hiz reserchez in fonoloji, and it waz natural that he shud esteem the reform ov speling az a benevolent enterprize espeshali wurthi ov hiz atenshun and aid. He wil be mist by everi wun hu atendz the gatheringz which he yuzd tu enliven and enlighten. We shal not luk upon hiz like agen.

After the reading ov the adres, W. D. HENKLE, Ph. D., editor ov the *Ohio Educational Munthly*, made sum apropriate remarks respecting our deseast Vise-Prezident S. S. HALDEMAN, and then muvd that the ofiserz ov last year be re-elected. The moshun waz secunded and the ofiserz wer uninanimusli re-elected.

On moshun the folowing pursonz were elected adishunal vise-prezidentz: F. A. P. BARNARD, prezident ov Columbia Colej, N. Y.; Prof. THOMAS R. PRICE, ov the Universiti ov Virginia; Prof. JOHN L. JOHNSON, ov the Universiti ov Mississippi; Prof. CRAWFORD H. TOY, ov Harvard Universiti; Prest. J. C. GILCHRIST, ov the Iowa State Normal Scool; Hon. GEO. H. PAUL, ov Milwaukee, Wis.; Hon. WM. H. WELLS, ov Chicago, Ill.; Mr. W. O. ROGERS, Superintendent ov Scoolz, Niu Orleanz, La.; Prof. R. MEANS DAVIS, Winnsboro, S. C.; Mr. H. D. WYATT, Superintendent ov Scoolz, Chattanooga, Tenn.; Mr. J. M. FISH, Superintendent ov Scoolz, Little Rock, Ark.; and Mr. W. W. W. JONES, State Superintendent ov Public Instrucshun, Lincoln, Neb.

On moshun the foloing comiti on publicashun waz elected: Prof. F. A. March, chairman, Easton, Pa.; Prof. W. G. Ballantine, Oberlin, Ohio; Hon. W. D. Henkle, editor ov the *Ohio Educational Munthli*, Salem, Ohio; Hon. W. C. Whitford, State Superintendent ov Scoolz, Madison, Wis.; and Prof. S. G. Barnes, ov Grinnell, Io.

On moshun it waz rezolvd that local comitiz be apointed in al the States and teritoriz, and the mater waz referd tu the executiv comiti with power tu act.

Mr. Tobias Witmer, ov Bufalo, N. Y., then red an interesting paper shoing the benefits ov fonetic speling.

Mr. Witmer sed:

The crying need ov this aje iz an Orthografi that iz wurthi ov the English langwej. "At prezent," sez Dr. F. A. March, "our Orthografi iz the wurst on the planet."

Our speling shud be made ezi for the forener, and I hav pruvd that with a veri slite chanj in the form ov three ov the leterz, a hapi conformashun iz efected so az tu favor the German, Dutch, Spanish, Italian, Swedish, and uther European langwejez, while our own langwej haz in no way bin compromized therby.

By my method, speling, reading, and riting, which al lie at the veri foundashun ov literachur, ar made tu acord with reazon and comun sens.

Economi, which iz wun ov the Virtuz, enterz intu this sistem, while in the old speling economi haz not the least recognishun in eni sens.

With a fonetic alfabet, children wil lern tu read wel in a quarter ov the time required by the prezent method, and a forener wil be abl tu read our langwej at site az I hav repeatedli pruvd.

With a fonetic alfabet, perfecshun in reading can be ataind, while by the old method onli a favord fiu becum gud readerz.

By the old speling, a laborius and irksum task iz impozd upon everi child born, which iz unjust and wurs in its efects than cruelti tu animalz.

It iz a kind ov sentimental cowardis that prompts opozishun tu the Speling Reform. This however, iz hapili giving way tu a higher intelijens; and a tru sens ov justis and right iz predominating.

Why shud a nashun ov freemen, bosting the highest degree ov moral culture, and intelectual refinement, eni longer submit tu the fostering ov a sistem ov speling that everi living soul haz tu deal with, thruout this great nashun, and that sistem confesedli, yes universali declared tu be a fals, bungling, misleading habit, impozd upon us by past erorz and blunderz, and uther, les reprehensble, yet no les inexcusabl, cauzez. Now, however, thoze cauzez no longer exist, and why shud their efect be alowd tu tarnish the brite escutshun ov our Litereri Baner?

Reazon, astonisht, asks, "Hu iz opozing yu?" Echo anserz by asking "Hu?" No wun, indeed iz *opozing* us. Such jiant intelects az Max Muller, S. S. Haldeman, A. J. Ellis, Isaac and Benn Pitman, Whitney, ov Yale, F. A. March, A. H. Sayce, and a host ov uthers, huz personal interests mite be justli sed tu lie on the uther side, hav al united in expozing the hurtful inconsistensiz ov English speling, not wun ov them expecting ever tu gain wun sent, or more or les, by thus informing the pepl ov a yusles burden they hav carid so long that they ar unconshus ov its weit! Hu dare dispute what theze great scolarz hav sed? Now that we hav bin made aware ov it, shal we hold our handz and conclud that it haz bin carid so long, "beter cari the burden longer," lest its los shal griev us, like the man hu carid a rok tu mil in wun end ov his grain sak, tu balans the weit, insted ov dividing the load itself? Indeed, thus du apear the arguments now yuzd in excius for *continuing* tu spel the old way! We wud raiz our humbl vois in harmoni with theze venerabl educatorz and join the corus ov thouzandz ov speling reformerz al over the broad erth, and cry for shame! tu propagate for wun day longer so flagrant an eror az tu teach an inosent child that *laughter* spelz lafter, and that *slaughter* spelz slawter! Not onli duz this and a thouzand like blunderz, violate the rulez ov rezun and comun sens, but they mislead the etimolojist in huz behaf the eror iz ostensibli propagated. For augh in laughter equalz af in after, and augh in slaughter equalz aw in awkward, while both ar alied *tu wun sound* in the German from which they ar taken! [See German *lachen* and *schlachten*.]

An ecselent dril for smal children iz tu combine each ov the simpl vocalz with each consonant sound, forming simpl silablz, without regard tu their meaning, furst with vowel inishalz, then with consonant inishalz, so az tu secure perfect articulashun. This wil lay gud foundashun for the child'z progres in elociushun, which shud not be delayd tu long. Wun munth spent in theze rudimental exersizez, without text-buk or chart, until a perfect control ov al the organz ov speech, and the vois haz bin inculcated, wil fit the child for lerning almost eni ov the fonetic scemez extant, and without confuzhun, az al ar aiming at wun grand prinsipl, viz:

"A sign for a sound, and a sound for each sign."

We now advans a step further, introdusing the blakbord or the charts or both. We teach the formashun ov wurdz, with the silablz alredi lernd, and each pupil shud hav a slate and shud be taut furst tu draw picchurz ov simpl objects, then tu print the wurdz expresing the namez ov the objects, and tu copi them neatli intu a buk prepard for that purpoze, tu be prezervd by the pupil az the most faithful record ov hiz progres. Az he advansez, the definishunz ov the wurdz shud be printed foneticali intu this litl buk, which eventuali becumz hiz vocabuleri, made with hiz own hand. For the time being I propoze tu teach the pronunshiashun ov wurdz in the old speling, by asoshiating each historic wurd with its fonetic model, and the child iz taut tu *pronouns* the old wurdz by the niu wunz, so az tu fit him tu read the old az wel az the niu form ov speling, without, however, atempting tu spel or rite the wurdz the old way, ov which ther wil be no more need.

No "name soundz" ov the vowelz shud ever be givn ecsept by the power ov the leterz in the wurdz in which they ocur. Nuthing tendz so much tu bewilder the bright reazoning child az the naming (or niknaming) ov the leterz ov the alfabet. No child on this futstool wud think that y-a-c-h-t iz pronounst yot, until it waz told at least fifti timez. But by riting it or printing it and *asoshiating* it with sum uther thing, the memori at length haz it graven indelibli upon it, and we seldom forget how tu spel the hard wurdz when wuns we no them.

H might be named hay, g gay, w way, etc., with much proprieti, but for instrucshun in speling and reading the elemental soundz themselvz ar the best namez.

On Wenzday evening, T. R. Vickroy, editor ov the FONETIC TĪCHER, red a paper before the General Asoshiashun, upon the Need ov an Impruvd Speling.

Az speling iz an educashunal aplians, and our prezent orthografi iz a great hindrans tu proper educashunal wurk, it waz insidentali aluded tu in uther departments.

This waz espeshali dun by Superintendent Peazley ov Cincinnati, Ohio, hu recomended that speling be banisht from the cors ov studi az a distinctiv branch tu be taut onli insidentali in conecshun with reading and uther studiz. In the discushun several leading educatorz championd the coz ov impruvd English orthografi. Intelijent men in al departments ov life ar ernestli urjing the simplificashun ov speling.

The executiv comiti held a meeting after adjurnment and authorized Prezident March tu act for them, ad interim.

T. R. VICKROY,
Acting Secreteri.

OFISERZ OV DHI SPELING REFORM ASOSHIASHUN.

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CIRCULARS OF INFORMATION

OF THE

BUREAU OF EDUCATION.

No. 3—1881.

PROCEEDINGS OF THE DEPARTMENT OF SUPERINTENDENCE
OF THE NATIONAL EDUCATIONAL ASSOCIATION AT ITS
MEETING AT NEW YORK, FEBRUARY 8-10, 1881.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1881.

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LETTER.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, June 8, 1881.

SIR: The meeting of the Department of Superintendence of the National Educational Association in New York City last February was characterized, like preceding meetings, by the ability of most of the papers and discussions then presented.

The subjects treated relate to matters of current importance, and, if published, would satisfy the many demands upon this Office for like information.

I therefore recommend the publication of these papers as a circular of information.

Very respectfully, your obedient servant,

JOHN EATON,
Commissioner.

The Hon. the SECRETARY OF THE INTERIOR.

Publication approved.

S. J. KIRKWOOD,
Secretary.

NATIONAL EDUCATIONAL ASSOCIATION.

DEPARTMENT OF SUPERINTENDENCE.

MEMBERS IN ATTENDANCE.

REPRESENTING STATES.

Hon. B. G. Northrop, secretary of the State board of education of Connecticut, Hartford.

Hon. James P. Slade, State superintendent of public instruction of Illinois, Springfield.

Hon. J. H. Smart, State superintendent of public instruction of Indiana, Indianapolis.

Hon. C. W. Von Coelln, State superintendent of public instruction of Iowa, Des Moines.

Hon. H. C. Speer, State superintendent of public instruction of Kansas, Topeka.

Hon. M. A. Newell, State superintendent of public instruction of Maryland, Baltimore.

Hon. E. A. Hubbard, agent of the State board of education of Massachusetts, Springfield.

Hon. J. W. Patterson, State superintendent of public instruction of New Hampshire, Concord.

Hon. Ellis A. Apgar, State superintendent of public instruction of New Jersey, Trenton.

Hon. Neil Gilmour, State superintendent of public instruction of New York, Albany.

Hon. Daniel F. DeWolf, State commissioner of common schools of Ohio, Columbus.

Hon. J. P. Wickersham, State superintendent of public instruction of Pennsylvania, Harrisburg.

Hon. J. Ormond Wilson, superintendent of schools for the District of Columbia, Washington.

REPRESENTING CITIES.

Hon. Aaron Gove, superintendent of city schools, Denver, Colo.

Hon. H. M. Harrington, superintendent of city schools, Bridgeport, Conn.

Hon. Ariel Parish, superintendent of city schools, New Haven, Conn.

Hon. N. C. Dougherty, superintendent of city schools, Peoria, Ill.

Hon. A. P. Stone, superintendent of city schools, Springfield, Mass.

Hon. W. W. Waterman, superintendent of city schools, Taunton, Mass.

Hon. Albert P. Marble, superintendent of city schools, Worcester, Mass.

Hon. Wm. N. Barringer, superintendent of city schools, Newark, N. J.

Hon. Henry B. Pierce, superintendent of city schools, New Brunswick, N. J.

Hon. E. V. DeGraff, superintendent of city schools, Paterson, N. J.

Hon. Chas. W. Cole, superintendent of city schools, Albany, N. Y.

Hon. B. B. Snow, superintendent of city schools, Auburn, N. Y.

Hon. L. C. Foster, superintendent of city schools, Ithaca, N. Y.

Hon. H. R. Sanford, superintendent of city schools, Middletown, N. Y.

Hon. U. W. Cutts, superintendent of city schools, Orange, N. Y.

Hon. L. S. Packard, superintendent of city schools, Saratoga Springs, N. Y.

Hon. Andrew McMillan, superintendent of city schools, Utica, N. Y.

Hon. J. A. Nichols, superintendent of city schools, Yonkers, N. Y.

Hon. Henry S. Jones, superintendent of city schools, Erie, Pa.

Hon. L. O. Foose, superintendent of city schools, Harrisburg, Pa.

MISCELLANEOUS.

Hon. Jul. Katzenberg, school commissioner, New York City.

Hon. W. O. Garrison, superintendent of schools, Cumberland County, N. J.

Hon. Henry E. Pellew, school commissioner, New York City.

Mrs. E. W. Walworth, school commissioner, Saratoga Springs, N. Y.

Hon. W. L. Hoyt, school commissioner, Charleston, N. Y.

Hon. C. Henry King, school commissioner of Richmond County, Stapleton, N. Y.

J. H. Hoose, PH. D., Cortland, N. Y.

J. M. Hawkes, New York City.

H. B. Smith, New York City.

I. W. Smith, superintendent of schools, Children's Aid Society, New York City.

Amos M. Kellogg, A. M., editor of the New York School Journal, New York City.

Edwin Leigh, M. D., Brooklyn, N. Y.

Hattie N. Morris, Brooklyn, N. Y.

Joseph H. Palmer, Yonkers, N. Y.

John G. Murphy, Fishkill-on-the-Hudson, N. Y.

W. A. Campbell, High School, Hoboken, N. J.

David E. Rue, Hoboken, N. J.

FIRST SESSION—TUESDAY EVENING.

NEW YORK, *February* 8, 1881.

The first session of the department was held in the hall of the Cooper Union this evening.

Mr. N. A. CALKINS, chairman of the committee of arrangements, in calling the meeting to order, said:

LADIES AND GENTLEMEN: The Department of Superintendence of the National Educational Association has honored the city of New York by meeting here.

I now take pleasure in introducing to you the president of the board of education in New York, Hon. Stephen A. Walker, who will give the address of welcome.

Mr. WALKER spoke as follows:

MR. PRESIDENT AND GENTLEMEN OF THE CONVENTION, LADIES AND GENTLEMEN: I take great pleasure in performing the office assigned me upon your programme and in welcoming you to the city of New York. I hope that this duty, having come to me as an official, will not seem thereby perfunctory or in any degree the less personal and cordial.

New York has been said to be a German city; it has been said to be an Irish city. Neither is true. It is a cosmopolitan city, and so far as devotion to the common schools is concerned it is, has been, and always will be, with even justice and a large liberality towards all, an American city, and to those who come here representing that idea and bearing these credentials our homes and our institutions are hospitably open. I welcome you to Cooper Union.

An Englishman who was lately here wrote to a paper in his own country that he thought this place should be called "a cellar of oratory." It is true we reach it without an elevator, but many good things of this life are kept in cellars, and the wine of free speech has never had a better storehouse than this. This place, gentlemen, is already historic. Could these walls have been covered with phonographic plates these past five and twenty years, we might take them down and there read the record of everything in politics, everything in social science, everything in finance, which has agitated the people or guided the forces and affairs of the nation. Democrats from this platform have argued for a high tariff and Republicans advocated free trade. Millionaires have represented the beneficent advantages of an unlimited currency, and men without a shilling in their pockets have favored contraction. This has been the focal point of every presidential and gubernatorial campaign since its doors were opened, and, when the issues have been at white heat and orators have found, by long practice upon the rural districts, what stories took the best, what arguments struck the closest, they have here made their final efforts. Here, in the gloomy or the cheerful da of the war, stood Dickinson and Sumner to confirm and inspirit the hearts of the people. And here, just twenty-one years ago this present month, fresh from the heat of partisan debate in Illinois, stood the rugged form, here were heard the winning, wise, and weighty words of Abraham Lincoln.

But you are not only welcome to this historic hall; you may find a worthy reception to the topmost story of this edifice. From corner stone to flag staff there is not a square foot of space undedicated to the improvement and education of the people.

I congratulate you, Mr. President, on the purpose that brings you together and the happy issues that may be expected from your assembling. You are here to welcome each other, to hear each other, perhaps what is still more delightful, to hear yourselves. The good that may arise from the presentation and discussion of views may be difficult to calculate. You as superintendents are, I suppose, probably with very few exceptions, graduates from the corps of working teachers. If so, you are familiar and long have been with the complaint so frequently in the mouths of teachers, that the public fails to recognize their vocation as a profession, and only grudgingly, if at all, accords it the dignity in speech and nomenclature of which it is worthy. I state the fact of the complaint without argument, but it occurs to me as apropos to this occasion to say that there is an element wanting in the strictly professional character of the teacher's vocation which it may be, in the course of years, within the power of gatherings like this to supply.

Strictly speaking there can be no profession in the absence of a digested and systematic professional literature, and just that the teacher's art is not furnished with; of course I speak not of text books—of the making of these there is truly no end—I mean philosophical treatises on the fundaments of pedagogy, the philosophy of the mind of youth in distinction to that of the mind of maturity.

How is it with the law? I can select two volumes from my library and hand them to a young man of parts trained to study and say, "Young man, master those two books. You may separate yourself from all human intercourse; you may exclude all other subjects for reading or study. If in two years or five years you can come to me having thoroughly mastered from these books the principles you find asserted and elucidated in them, you are a lawyer." Much will come from experience. The application of principles is the test of success, but grounded in these principles he is equipped for work, and after forty years of work the successful pleader or advocate can point to his two or his twenty thousand volumes which have formed his modes of thought and have been the source of his strength and power, and say, the whole is a perfect and rounded philosophical system, the applications of the principles of natural justice to the infinite vicissitudes of human experience. I will not enlarge on so fascinating a theme; it is so in the other learned professions. Paul and the Apostles, St. Augustine and the fathers, speak from every pulpit; Hippocrates and Galen minister at every bedside. A systematized philosophical professional literature is the source of all strength and power.

I beg leave to suggest that your assembly may, while not intending it even, contribute to so wholesome a result. Literature is an evolution; the fittest survives. Some words here spoken may strike new veins of thought, and your humblest speaker may turn out to be the educational codifier of the future.

Again, Mr. President and gentlemen, I welcome you in the name of the board of education, in the name of the city of New York, in the name of its first citizen, the founder of this edifice.

I beg leave to express the hope that a wise discretion, a faithful suggestiveness, and a sound wisdom may be present in all your deliberations.

Hon. ALBERT P. MARBLE, president of the Department of Superintendence, replied as follows:

On behalf of the Department of Superintendence I thank you for the very kind words of welcome which you have given to this body. The hospitality of the city of New York we all know something about, and from your words we think we shall know considerably more before the week is ended. This association has been in existence nearly a quarter of a century, and its printed reports published each year form something of a literature. There is an inspiration in this noble edifice, devoted from top to bottom to education, and we expect that as we enter upon this meeting we shall feel it. In conversing with a judge of the supreme court, about six months ago, he said to me of the profession to which I have the honor to belong that it was greater than to be a judge of the supreme court, "because you are the men that make the men that make judges." And again I wish to thank you on behalf of the association for the cordial words of welcome which you have given us; and now, ladies and gentlemen, I wish to say a few words to you.

The National Educational Association was organized in 1857. We are therefore hard upon its quarter centennial. The body is composed of persons actively engaged or interested in the work of education. Early in the history of the association there were organized within it departments composed of those members specially interested in one branch of education. These departments have increased in number till we now have one of superintendence, one of normal schools, of elementary instruction, of higher education, of industrial education. There is also a council of education, designed to formulate conclusions to which the discussions of the association may lead. Membership in the general association is a prerequisite for membership in either of these departments. The proceedings of the association and the addresses delivered are printed annually in a volume which is distributed among the members. The proceedings of the several departments are included in these vol*umes, each of three or four* hundred pages.

The Department of Superintendence is one of the oldest of these. I find it first mentioned in 1858. This, then, must be at least its twentieth anniversary. It has heretofore held its winter meetings in the city of Washington. The membership includes State, city, and township superintendents of schools. Superintendents from half, sometimes from three-fourths, of the States of the Union attend these meetings. Such is the body here met. It was through the influence of this department that the Bureau of Education at Washington was established, and General Garfield made a telling speech in the House of Representatives on the passage of the bill creating the Bureau. By means of this Bureau information respecting the public schools and all other kinds of education is disseminated. This department is also the medium by which the latest and the best in educational reforms, especially that which relates to the public schools, is spread abroad; for the interchange of ideas, both in public discussions and in private talk, tends to this result.

The body which this assembly represents, the teachers of the land, are the builders of the future America. Their work is not seen in a day; the results are far-reaching; the conducting of a nation's education should command the highest wisdom. Congress legislates for the present America with but partial reference to the future. Education relates solely to the future. Is there any grander work than this? If the Interior—largely concerned lately about a few Indians—is made a Department of the General Government, how about Education? It may be that the subject ought to be confined in a small bureau; and it may be that it ought not. This department of the Educational Association has never urged more prominence for its affairs. It has chosen to work quietly, as the Bureau at Washington has. But the example of other nations suggests my inquiry. There is no national control of education; it may be that there should never be even the semblance of such control; but as an individual—for this is not said as a representative of the department—I do not see that anybody need to be frightened, if, in some particulars and with proper restrictions, the National Government should act in the matter of public and universal education. Why not? Is it not of interest to each of us whether our fellow citizens, who participate with us in the exercise of sovereignty, are intelligent?

There are many publicists who advocate, in all matters, the fullest exercise of local option. They appeal to Jefferson, who is its great apostle. Let us see what he says about public education; it applies to all grades. In the discussion of "A bill for the more general diffusion of knowledge" before the legislature of Virginia, 1779, he said:

> It becomes expedient for promoting the public happiness that those persons whom nature hath endowed with genius and virtue should be rendered, by liberal education, worthy to receive and able to guard the sacred deposit of the rights and liberties of *their fellow citizens*, and that they should be called to the charge without regard to *wealth, birth*, or other accidental condition or circumstance. But the indigence of

the greater number, disabling them from so educating at their own expense those of their children whom nature hath fitly formed and disposed to become the useful instruments of the public, it is better that such should be sought for and educated at the common expense of all than that the happiness of all should be confided to the weak or wicked.

There is an awakened interest in this country on the subject. The New South joins us in fraternal contest to obtain for itself the benefits that have flowed from public universal education at the North. In building up a new system they at the South have this advantage of us: there is no old lumber in the way. The Peabody fund has been a stimulus for them, and it will continue to be so. This new interest at the South displays itself in building up; at the North it shows itself in attacks with a view either to reform or to destroy. In either case our critics are our best friends. For no institution, no individual, attains its full strength without a contest. The young eagle learns to fly by being thrown from the cliff; its eye grows strong by gazing on the sun—so they say. The child contends with measles, whooping cough, chicken pox, and what not before he is a man. We never knew the strength of the Government till it was tried. So the public school system must resist attacks, or its friends will not know what it is worth. Accordingly, we say to Mr. Richard Grant White: "Please write us another Common School Failure." We glory in the way the first article was met; we didn't know before how strong the schools stand in the affections of the people. We leave it to the free college from which he was graduated to discipline him; we wait cheerfully the next discharge. Trained in the public schools, it may be said that a man ought to know whether they are a failure, for he has experienced their influence in his own person. But he may not be able to diagnose his own case. Perhaps he does not discriminate among the influences to which he has been exposed. A man of great ability ought to be satisfied. But if he will attack his schools, who knows but he may next find fault with his grandmother?

The awakened interest in education is evidenced by the reformer, numerous varieties of whom make their appearance through the public public prints almost daily. They develop scientifically, as they think. They are active, and enthusiastic, and visionary, and empirical, and alert. Defects they find, of course; they prescribe a remedy; it fails. They try another; it does not cure. They create a revolution; it does not pervade the land. And then, exhausted and discouraged, they bow the head in sackcloth and sit them down in the wilderness of faded hopes and feeble products, which their own morbid imagination has created; and there, like the ancient prophet, the lamenting Jeremiah, they deplore the forlorn state of our Israel! They might save themselves the trouble of these experiments and failures by studying the work of other people. They would see that the race has gone through the experience; and that the individual might profit by his ancestors, and not try *to learn it all* for himself. It would be amusing if it were not sad to see how teachers and all concerned in school work are made the subject of adverse criticism. No case of fraud comes up but the blame is laid at their door; no smash-up on a railroad but the defective education in our public schools comes in for a rap; no record of immorality appears but the "godless schools" have to take the blame of it. If an accident happens in a school such as often happens at home the teacher was careless, of course. I cut this from a paper last autumn:

A SCHOOL TEACHER BURNED TO DEATH.

Fannie Knapp, a teacher in one of the Sutton public schools, was fatally burned Monday because one of her pupils threw a lighted match under her dress. The flames spread so rapidly that she was injured beyond recovery before they could be extinguished, and she died in a few hours.

Not much was said about the unfortunate Fannie Knapp. The public was not much concerned about her; she was nothing but a teacher, and she was paid a salary. It turned out later that it was the girl, a pupil, who had died; the teacher exposed her own life in trying to extinguish the flames; that was all. A good deal was said about the unfortunate child, but nothing was made public about the heroism of the teacher! If the accident had happened through any fault of hers how "our schools" would have been berated. No complaint is made of this tendency; the schools can stand it; they will grow better in consequence of it.

In contrast with the critics and the reformers, are those who expect of the public schools the miracle of universal, omnipotent, all pervading, ceaseless activity and influence. If a new mode of ventilation is devised, it must be applied at once to the public schools; every sanitary improvement seeks at once the public schools; every moral reform, temperance, sewing for the multitude, cookery, the society for preventing cruelty to animals, cruelty to children, cruelty to men and women, and everything, and the society to furnish top boots and fur mittens to the people of Borneo—all are no sooner provided with a chairman and secretary than they move at once upon the public schools to inaugurate the new benevolence. They estimate that one-sixth of all the population are in school; a very small contribution from each will aggregate a large sum; each child, when inspired with the new spirit, will be a missionary at home; and the whole community can in this way be moved. Like Sellers, they think "there's millions in it." Every good thing, they think, should be at once introduced into the public schools. The fact is, they can't all be introduced there.

A youthful citizen of a city where this sentiment prevailed full as widely as the Maine law was executed, had imbibed this spirit of the age, and too much of a spirit unfortunately not confined to this or any other age; he reached a conclusion which he announced in front of a saloon, with a slow and gloriously indifferent tone of voice, and with an air of *lofty superiority* to the ordinary utterances of mankind: "Whiskey's a *good thing; it* ought to be introduced into the public schools."

There is a class in the community which is possessed with the notion that all the school methods heretofore adopted and practised are wrong. Children must not be condemned to plod away in the old ruts. Let us make it interesting for the little folks. No more of the dull, dry study! No more poring over books. Study nature. Let the child go forth into the fields, beside the brooks, and "list to nature's voice"—all in a highly poetic strain. That is all very good in moderate quantities. But nature alone cannot secure good education; there is work in it, and work means sweat. There is, indeed, one easy road, down hill all the way. And you know where it leads to! The friends we are now describing make teaching almost wholly oral—what the Orientals would call "chin-chin."

There is philosophy, if not modern "methods of education," in the following:

> Deer Isle, up near Mount Desert, has plenty of schools for the native children, but all the boys are rushed through the course at an early age and sent to sea, for which they are prepared by a course of navigation. One young chap had a teacher who was fond of natural history but did not know much about mathematics. One day, after she had given him a long dissertation upon a bee that had flown in at the window, the little fellow, who knew he could have at the longest only three months' schooling before going to sea, suddenly exclaimed: "I say, missis, 'scuse me, but I dunno as I care how a bumblebee's wings is made; I hain't no time for sech things; I want to know how to cipher!"

Turning, now, from the elementary schools, let us for a moment consider another class of "educators" who aim at a higher state than the ordinary mortal attains. In the classic shades of some ancient university, they pass through all the philosophy of the ancient classics; Greece and Rome they exhaust; they wing their adventurous flight to the prehistoric philosophy of the east; Buddha and Confucius they note in passing; and then they go on to protoplasm, the original germ of things, primordial cells, and the development theory of the physical man; and beyond this they advance to the primordial cells of mind, the essence of the uncreated *ego*, and the great First Cause, the ethereal, idealistic entity, or whatever it is called, the mother, the original matrix of the universe.

With these superior beings, so developed, etherealized, and sublimated, the ordinary affairs of the world dwindle into insignificance; the things that engage common men sink into nothingness. These philosophers affect an "indifference." In their eyes you see the dreamy, far off look which betokens the sage rapt in the contemplation of the great unknowable and the unattainable. They are often unsuited for the business, the pleasures, the achievements of this century and this age. To the question of the training of the young they come clothed in doubts concerning the possibility that the mass of men can ever attain that blissful state to which they have come. They give up as hopeless the attempt to raise the multitude; and so they confine themselves to the problem of opening the eyes of the select few who may attain Nirvana, the blissful state of Buddha. This state, which they have reached, is thus set forth in the Light of Asia by Edwin Arnold, lately published:

> Thus "finishing the Path;" free from Earth's cheats;
> Released from all the skandhas of the flesh;
> Broken from ties—from Upâdânas—saved
> From whirling on the wheel; aroused and sane
> As is a man wakened from hateful dreams.
> Until—greater than Kings, than Gods more glad!—
> The aching craze to live ends, and life glides—
> Lifeless—to nameless quiet, nameless joy,
> Blessed Nirvana—sinless, stirless rest—
> That change which never changes!

Let the demi-gods rejoice in that state and admit to it the few congenial spirits whom they can find. We want none of it in this country except as a spice, a condiment to mingle in little doses to flavor the body politic.

Another class of our friends seek in the public schools preparation for every trade and occupation in life. They confound the general preparation which we ought to give and can give with that special preparation which comes of long practice in actual affairs. Instead of a geography, they would substitute a plane; for a slate, they put in a hammer. This playing at work is a sham; the boy sees it to be a sham; he becomes a sham. True education is broader than that. Hear what Horace Mann said forty years ago:

> Far above and beyond all special qualifications for special pursuits is the importance of forming to usefulness and honor the capacities which are common to all mankind. The endowments that belong to all are of far greater consequence than the peculiarities of any. The practical farmer, the ingenious mechanic, the talented artist, the upright legislator or judge, the accomplished teacher, are only modifications or varieties of the original *man*. The man is the trunk; the occupations and professions are only different qualities of the fruit it yields. The development of the common nature, the cultivation of the germs of intelligence, uprightness, benevolence, truth, that belong to all—these are the principal, the aim, the end; while special preparation for the field or the shop, for the forum or the desk, for the land or the sea, are but incidents.

Standing on this broad foundation, the development of man, the schools will be useful and rest secure. The contiguous territory of all sorts of trades in school is sand. Whoever builds upon it will see his house swept away. And within the proper sphere of public school education there is work enough to do.

Into this great mart, with the products of every land, float the peoples of the whole world. Here, the liberty loving Englishman escapes the restraints of an insular life; the sturdy Scotchman plants his family tree on this soil; the Irishman finds here the freedom denied him at home. Here the mercurial Frenchman and the phlegmatic German mingle, with a product better than either. Spain and Italy, Austria and Turkey, Russia and Sweden, Norway and Denmark, send their quota to make the city cosmopolitan. Asia, Africa, and the islands of the sea make contribution to a society here, where all peoples, tribes, and tongues meet, and whence issue streams to flow all over the land. This city needs, the country needs, some alembic in which these heterogeneous elements shall be fused into homogeneity; some agent or force that shall transmit all nationalities into American citizens. That alembic is the public schools; that force is education.

Mr. MARBLE then read the announcements for the meetings of the week, and introduced WILLIAM T. HARRIS, LL. D., of St. Louis, who read a paper on "The present aspect of education," the manuscript of which has not been revised in time for this publication.

At the conclusion of this paper the department adjourned to meet the next morning at the hall of the Young Men's Christian Association.

SECOND SESSION—WEDNESDAY MORNING.

NEW YORK, *February* 9, 1881.

The second session was held at 9.30 A. M., in the hall of the Young Men's Christian Association. Mr. MARBLE called the meeting to order, and said that as the secretary and treasurer were absent, the first business would be the election of an officer pro tempore, whose duty would be to report the meeting, collect fees, &c. Mr. H. M. Harrington, of Bridgeport, Conn., was nominated and elected unanimously. Mr. MARBLE then introduced Superintendent Andrew McMillan, of Utica, N. Y.

Mr. MCMILLAN said:

In the first place I propose to inquire whether statistics are necessary as aids to our work, and, if they are, then whether they ought to be specific and accurate in all respects, throwing away all estimates and getting down to exact facts; and, in the next place, whether they ought not to be uniform, so that we can make comparisons readily.

He then proceeded to read the following paper:

UNIFORMITY OF SCHOOL STATISTICS.

Statistical facts, however crude in character or limited in extent, have been recognized by all nations as the legitimate foundation for the operations of general government. These were at first collected in the simplest form, being merely an enumeration of the population, chiefly for the purpose of ascertaining the numerical national strength, for the purposes of offensive or defensive military operations; hence, the census of population may be reckoned as the progenitor of all statistical systems.

The establishment of governments brought also the necessity of providing means for their support; hence the imposition of taxes upon the resources, mainly the industries, of the country.

The collection of these revenues necessarily disclosed the social, physical, and *intellectual condition* of the people, furnishing data on which plans of government were framed and operated. Thus, in a primitive manner, at a period far remote from the present, was laid the foundation for our present comprehensive system of statistics, to which we are very largely indebted for a fund of general knowledge.

As early as the fourteenth century statistical records were officially made, and of such importance to students of political science were they deemed, that elaborate works descriptive of commerce, population, &c., were compiled, published, and used as text books in the universities of the principal countries of the Old World.

In the sixteenth century valuable works on this subject were published from time to time, and widely circulated, some of them going through several editions.

From these small beginnings originated the system of collated statistical information, upon which all progress, whether scientific, physical, moral, or intellectual, is established and carried forward. Says an eminent writer: "That it is necessary for a government, in order to govern well, to acquire information upon matters affecting the condition and interests of the people, is obvious. Indeed, the civilization of a country may almost be measured by the completeness of its statistics. However rude the government may be, it cannot attempt to make laws without having acquired the means of forming a judgment, however imperfect, as to the matters brought under its consideration. In this sense, statistics may be said to be coeval with legislation." Although the value of statistical information was universally acknowledged, no action seems to have been taken looking to the establishment of an international congress of statisticians until the year 1853. At that period, however, delegates from the various representative governments of the Old World, uniting with our own, met in conference in Brussels for the purpose of effecting harmony and uniformity in the statistical work of nations. Much was accomplished for the object contemplated, which was, to enable each government to make comparisons readily and accurately with the others. The results prove that incalculable benefits have accrued to all from the efforts of this convention.

In our own country rapid advancement has been made in collecting and disseminating statistical information, both by the Government and various societies devoted to the purpose. If in private life an individual would be successful in business, he must at the close of each year know the exact condition of his affairs as compared with that of previous years, that he may thus be enabled to arrange his plans for the future. So, also, must a government annually ascertain the exact condition of all the departments of which it is composed. No legislator is competent to assist in framing the laws of a country without first having made himself familiar with the moral, social, and political condition of the people.

This knowledge can only be obtained by studying statistics relative to the material resources, industries, education, and other topics of his own country and of other nations. Thus only will he be enabled by comarison and study to recommend the passage of laws that will tend to he general improvement of his state or country.

In collecting statistics the government of course must take a comprehensive view of the needs of the several departments that unitedly aim at the welfare and prosperity of the country, each department, however, especially desiring to study mainly such matters as pertain to its special work. The agriculturist seeks information in regard to improvements in agricultural implements, the extent of the land under cultivation, its adaptiveness to certain crops. Statistics in regard to the extent and condition of agriculture will virtually control the market in breadstuffs, not only here, but in foreign countries.

Manufacturing interests are affected by statistical knowledge of supply and demand; knowledge which also forms the basis upon which to extend commerce, build canals, conduct railroads, and found cities. It reaches far into every plan of social and political economy affecting the interests of individuals as well as communities. So in all departments of government is correct statistical information not only desirable, but absolutely indispensable.

In the department of education we may learn much through the regular channel of personal observation in our routine duty, we may experiment with the varied methods of teaching, adopt new plans of discipline, improve and extend the course of study, and by noting mistakes and remedying imperfections bring our respective departments of school work to a condition somewhat commensurate with our high standard; but much more could be accomplished were we able to add to this local knowledge general statistical facts bearing upon the subject, and collected from all parts of the country, which should serve as the basis of comparison and useful deduction. With the ample provision made by government for collecting facts connected with schools, it would seem that we have but to turn to official reports to obtain all desired information. But it is just here we are confronted by an obstacle of no small dimensions, and which so far as I know nowhere else exists in the wide domain of statistical research. I refer to the lack of uniformity in the methods of collecting facts and data pertaining to school work in the different States of the Union.

It is admitted in the outset that special acts adapted to widely diversified districts necessarily involve a large amount of detailed statement. But this detailed work can be so condensed and generalized as to become available for State and national reports. I refer now, however, to the irregular systems of keeping school statistics, which are not only apparently unnecessary, but render reports coming from the several States nearly useless for purposes of useful comparison.

Take, for example, statistics in regard to the legal school age as it exists in the various States. This is of course an arbitrary enactment, made for the purpose of securing an equal distribution of the State school *fund among the various* districts in just proportion to the school popu lation of each. But pecuniarily it can make no difference whether the limits of that age be prescribed as 4 and 21 or 6 and 18 years, since the pro rata will be the same in either case.

In illustration I cannot do better than refer to the last annual report of General Eaton, United States Commissioner of Education.

From this document the legal school age, as reported from 38 States, 6 Territories, 3 Indian reservations, and the District of Columbia, is as follows:

Of 5 it is from 4 to 21.
Of 8 it is from 5 to 21.
Of 9 it is from 6 to 21.
Of 3 it is from 7 to 21.
Of 2 it is from 4 to 20.
Of 3 it is from 5 to 20.
Of 3 it is from 6 to 20.
Of 2 it is from 5 to 18.
Of 3 it is from 6 to 18.
Of 1 it is from 7 to 18.
Of 1 it is from 10 to 18.
Of 1 it is from 5 to 17.
Of 1 it is from 6 to 17.
Of 1 it is from 4 to 16.
Of 2 it is from 6 to 16.
Of 2 it is from 5 to 15.
Of 1 it is from 8 to 14.

From these data we find that 17 different periods of time are established as legal school age in forty-eight States and districts. For purposes of comparison it will be seen that this report of school population of the United States is not only valueless, but may lead to misapprehension and gross deception, as one or two examples will clearly show. The legal school age in the State of Florida is from 4 to 21 years, being a period of 17 years, while in the State of Texas it is from 8 to 14, or a period of only 6 years. Hence, we find a striking disproportion in these two States of children of school age as compared with the entire population.

Again, the State of New York prescribes the school age as from 5 to 21 years, while the State of Massachusetts limits it to 5 and 15 years. Again, referring to General Eaton's report, I find the school population of the State of New York to be 1,615,256 and the number of pupils enrolled in school to be 1,032,052, showing 583,204 persons of legal school age not attending school during the entire year. In Massachusetts the number of children of school age, according to the same report, was 297,202, and there were enrolled in school 310,181 pupils, being 12,979 more than the entire school population. Judging from this statistical standpoint the inference is clear that illiteracy is much greater in New York than in Massachusetts, which is not true, as the last published United States census report shows that the number of persons above 10 years of age who cannot read is 1 per cent. greater in Massachusetts than in the State of New York. Could the same school age be adopted in all the States, this difficulty and confusion in the comparison of statistics on this point would be avoided, and at the same time they would be just as useful for local purposes.

There is also a great difference in the manner of keeping the financial statistics, not only in the different States, but also in the different districts of the same State. This often leads to unintentional injustice, especially in regard to the comparative cost per pupil for a year's tuition, as the comparison is made on the entire amount expended for all school purposes instead of on the current expenses. Tables founded on these reports are often arranged in years when some districts or cities have erected one or more school-houses, while in others no extra expenses have been incurred. Of course the tuition would be much greater in proportion in one case than in the other, as the new school-houses may cost as much in that particular year as the entire contingent expenses. Would it not be wise, therefore, to classify expenses under two general heads, as ordinary or current expenses and extraordinary expenses?

It seems to me there might be more uniformity in the manner of keeping the records of school attendance. In some cases the average attendance is made out at the close of each month, and the yearly average is compiled from these monthly reports; while others make the average for the entire year.

Again, there is a great diversity in obtaining the number belonging, some striking the names of pupils from the roll after an absence of five consecutive days, and others after an absence of ten days, &c. Perhaps this, however, is not of so much consequence, as all manage to get the average attendance on number belonging at about 98 per cent. I believe, however, that this average is not required in State reports, and ought to be stricken from all reports. The whole number enrolled and the average attendance are all that is needed for comparison.

I might go on and point out many other discrepancies in the present manner of keeping school statistics, but enough have doubtless been presented to show that reform is needed in this department of our work.

In closing, I will present for the consideration of this association the following outline for blanks for keeping school statistics sufficiently in detail for general reference, and which can easily be compiled from the more detailed reports that may be required in different localities.

ANNUAL REPORT FOR CITIES OR DISTRICTS.

1. Total population according to the last national or State census, ——.
2. Number of children between the ages of 6 and 16 residing in the —— at the date of this report, ——.
3. Number of public schools in the ——, ——.
4. Number of private schools in the ——, ——.
5. Number of pupils enrolled in the public schools during the year. Boys, ——; girls, ——; total, ——.
6. Number of pupils enrolled in the private schools during the year. Boys, ——; girls, ——; total, ——.
7. Whole number of days' attendance of pupils in the public schools during the year, ——; boys, ——; girls, ——; total, ——.
8. Whole number of days the schools were in session during the year, ——.
9. Average daily attendance of pupils in the public schools during the year, found by dividing the whole number of days' attendance by the number of days the schools were *in session. Boys, ——; girls,* ——; total, ——.

advantage than this. He said that a certain per cent. would be found enrolled in the public schools, and that Massachusetts was given as 110 per cent. because the children were enumerated from 5 to 15 years of age and admitted after they were 15. He thought that it was very necessary to have the information contained in General Walker's schedules, and moved that a committee of five be appointed by the chair to present this matter to the attention of Congress.

Considerable discussion ensued as to the number on committees and their duties, participated in by Messrs. Wickersham, Eaton, and Philbrick; and the chair (Mr. Marble) then appointed the following committees:

To memorialize Congress: J. H. Smart, Indiana; A. P. Stone, Massachusetts; Aaron Gove, Colorado; D. F. DeWolf, Ohio; M. A. Newell, Maryland.

Committee on the unification of school statistics: J. D. Philbrick, Massachusetts; J. P. Wickersham, Pennsylvania; C. W. von Coelln, Iowa; A. Parish, Connecticut; J. O. Wilson, District of Columbia; James P. Slade, Illinois; W. W. Waterman, Massachusetts; N. C. Dougherty, Illinois; E. A. Hubbard, Massachusetts; Andrew McMillan, New York.

After a recess of five minutes, Mr. MARBLE read invitations for the members of the association to visit a number of schools, and more especially the Normal College of the City of New York.

WEAK PLACES IN OUR SCHOOL SYSTEM.

Mr. MARBLE then called upon Hon. J. P. WICKERSHAM, State superintendent of public instruction of Pennsylvania, who said:

As the president is aware, I have no formal paper to read on this question. All I propose to do is to make a few remarks, pointing out with a friendly spirit such weak places as I have met with in the administration of public education. We have had very severe criticisms of late upon our system of education, from the outside. They do not receive from me any great sympathy, because they are written by persons very little acquainted with the public school system.

A prudent general before beginning a battle rides along the line for the purpose of ascertaining whether there are any weak places that the enemy might take advantage of. We are fighting the great battle of public education, the education of the people, and it has seemed to me that as superintendents it would be very wise for us to look along our line and see if there are not some weak places that an enemy might take advantage of in a close fight, in the close fight which is coming.

I have little sympathy with the recent book by "Gail Hamilton." As she looks at it, our system has too close an organization; the teacher is not free enough to work out his own individuality. These criticisms it *seems to me* are not well founded. She ought to have remembered that *there is a kind* of organization that builds up, and does not tear down or repress; that organization is necessary in every great work; that nothing is accomplished without it; and although here and there this great machine may press heavily upon one or another, yet we must have a machine in education as in everything else, and machines are good things, even in politics, provided they aim at a high purpose. This book, Mr. President, I consider a weak book.

Then we have the criticism of Richard Grant White. Who is Richard Grant White? What does he know about our systems of education? Has he ever attended our educational meetings? What does he know, that he should undertake to pronounce our public school system a failure? What experience has he had that he can speak on this subject? I have no hesitation in pronouncing that paper of his, as published in the North American Review, as unworthy of the subject, unworthy of the author, and unworthy of the great Review in which it appeared.

He quotes as proof of these failures that the applicants at West Point have not succeeded as well in late as in former years. You and I know that this is not the fact. This has again and again been proven to be untrue.

First of all, I think it a weakness that school boards and school committees do not possess a greater knowledge of the subject of their duties. They are elected by the people in nearly all our school districts, large and small. I know there are a few exceptions. I think it a weakness that they do not possess more special knowledge in reference to the matter intrusted to their hands. These gentlemen are generally men of intelligence. They are good business men. They are lawyers, doctors, clergymen, merchants, farmers, and are generally selected judiciously; and yet their want of special knowledge is a weakness.

As school directors these gentlemen are intrusted everywhere with the duty of providing apparatus and text books. No one but a teacher, and no one but an expert teacher, is prepared to do this. Again, the duty of these gentlemen is to construct a course of study. This is one of the most difficult pedagogical subjects that we have to deal with. Then, too, they are to be the judges of results of teaching, of methods of education, and the selection of teachers, and yet they are not specially fitted for it. The only discovery made at Quincy was that the members of the committee were unfitted to deal with the question of public schools; but this was a discovery of the greatest value, and should be made known everywhere.

Now, Mr. President, I want to point out another weakness, that is, the want of more experts in the work of supervision. We have probably a thousand gentlemen holding the position of superintendent of schools in States, cities, and counties throughout this country. We need a larger number who will devote their lives to the business of supervising schools. The work of supervising schools in this country is not well done, is not thoroughly done. We need a much larger force. Probably no State in this country is better organized than my own. We have ninety-tw superintendents in my State, and they are all commissioned by the department of public instruction, and all work together as one man. But then we have not half as many in the State of Pennsylvania as we need. We must look to it all along the line, that wherever we can we may strengthen it. It is weak in this respect in Ohio and weak in Massachusetts and weak elsewhere. We should strengthen this right arm of the whole system.

Now, Mr. President, let me point out another weakness, which is that the status of the teacher in the United States of America is not very satisfactory. It requires high art to educate a child. It requires far more skill than to chisel out a statue or paint a picture. Yet, the most difficult art in the world, the most difficult of all arts, is to train a child up to be a man, a full grown man. How young the teachers are! How frequently they are changed! We have them about five years, and then they are gone. Their term is short, their salary low, their tenure of office uncertain. We should see to it that the status of the teacher should be more satisfactory. We should multiply our normal schools and make them better. We should increase our teachers' salaries and press forward the whole work of lifting teachers up to a higher professional plane.

I want to call your attention to another weakness, and that is, children are not kept in school long enough. Large numbers leave school at an early age. Many children simply learn the elements of reading, writing, and arithmetic. And should the public school system be held responsible for those that attend the public schools but for a day, or month, or year? You will find in the prisons of the country a large number of those who have been in the schools for a short period; very few who have graduated from high schools. More than half of the inmates of prisons have been at the public schools a short time, but have acquired only the mere elements of knowledge, and therefore the public schools are not to be held responsible for a weakness of that character.

And this leads me to point out only one other weakness, and that is, that we still want a plan by which those that do not go to school can be brought into school. I have not much faith in a compulsory law in this country; that is, by means of fines and punishments. But there must be a way, and we must find a way, to gather these children into some suitable institution. I think perhaps it can be solved in this way: by making it the duty of school boards as much to look after the children out of school as those that are in school. Then give them power to appoint an agent, half constable and half missionary, more missionary than constable, and bring them into the schools. School boards and teachers and good citizens can do much, and, to make their efforts fully effective, there ought to be schools for neglected children in all cities and thickly settled counties.

These weaknesses are of a general character. These are the points at which our system is weak, and which, if we want to win a victory for education in this country, we must apply the necessary means to strengthen.

Hon. B. G. NORTHROP, secretary of the State board of education of Connecticut, said:

I will merely give a skeleton of the points I will urge. I think it is a point of great weakness that we have not in Washington a high school. It is necessary, if a high school be maintained in that city, that it should be supported by the National Government.

I think a cardinal weakness is the insufficient qualifications on the part of our teachers. If we can have throughout America well qualified teachers we shall rejoice. When the Bishop of Manchester was in this country, M. Hippeau, of France, was here also. Each made his report to his own government, declaring that in the schools of America the one defect was the lack of thoroughly qualified teachers.

I sympathize thoroughly with what has been said on the point of more competent and thorough supervision. Our schools suffer on account of too frequent rotation in office. It is exceedingly desirable that this business should not be influenced by political motives. This is a great damage to the system. On that point I need not enlarge.

Our friend has set forth the great weakness of non-attendance. It is a startling weakness, and we ought at once to prescribe a remedy. Every trade union is unanimous in enforcing compulsory education. I should deem a journey to the remotest corner of Connecticut amply repaid if it would bring in one child to the school.

I think one other point of great weakness, not in our system, but of teaching, is that developed in Quincy; that is, they showed there that hitherto the greatest weakness in American schools was in the failure to develop power of expression. Girard used to say: "The mother tongue — the great educator."

Another point is in the dread, in the fear, which American teachers — and, I think sometimes, American superintendents — have of developing the memory. I do not hesitate to say that you cannot develop it too much. I would not advocate memorizing anything that cannot be understood. I *do* advocate the committing to mind of the gems of literature.

Mr. DEWOLF, of Ohio, said that it seemed that they were in the very infancy of knowledge in regard to remedies. How shall the status of the teachers in the country to-day be changed? How shall the influence of teachers be made to be felt outside the school room? It seemed to him that it was not enough to recapitulate these weaknesses, but that thought should be given to changing these things in the several States.

Mr. PARISH, of Connecticut, would not pretend to offer a remedy for all the difficulties considered. Good teachers are wanted. Where *shall they be obtained?* Where is the power to demand good teachers and provide the means by which they should be made? Liberal appropriations are wanted for the schools. In his judgment, if one single class of persons of the community could be reached, these weaknesses would be removed, and that class is the parents. Theirs were the children in the schools. They had the most interest in them; not the teacher; not the school committee. The teacher should go to the home and see what the father and mother think of the conduct of the child. If the parents can be reached, there is a beginning made to rectify this whole work.

Mr. SMART, of Indiana, offered the following resolution:

Resolved, That the Superintendents' Department of the National Educational Association, now in session, hereby tenders to the Hon. Thomas R. Cobb, of Indiana, thanks for his effort to secure from Congress adequate appropriations for the support of the public schools of the District of Columbia, and especially for his recent endeavors to secure an additional appropriation for the purpose of erecting a high school building in Washington, thus aiding in making permanent provision in the capital of the country for that most important part of our American common school system, the free public high school.

This resolution was adopted, and the meeting then adjourned, to meet in the same place at 3 P. M.

THIRD SESSION—WEDNESDAY AFTERNOON.

NEW YORK, *February* 9, 1881.

Mr. MARBLE called the meeting to order, and, there being no business to come before it, at once introduced Prof. CHARLES O. THOMPSON, of Worcester, Mass., who read the following paper:

THE CONSERVATION OF PEDAGOGIC ENERGY.

The doctrine of the conservation of energy has given a forward impulse to all the physical sciences. When Joule showed that heat can be measured in units of work, and Tyndall, following Faraday's pregnant suggestions, discerned the law under which heat, light, and electricity are grouped as modes of motion, all thoughtful persons saw that whole continents of truth lay open to exploration. Physicists arose and trimmed their lamps. Mathematicians contrived new algebras for this new service; foot pounds, ohms, and farads speedily became familiar words; innumerable phenomena which had been vagrants for lack of control came trooping into line under the new laws which had been rapidly announced. Even the inner sanctuary of thought has been invaded, and men are accustoming themselves to think of *thinking* as so much molecular change in the substance of the brain. The possible discovery of a physical method of recording thoughts from the molecular activity of the brain cells is no more to be dismissed as an idle vagary than the telephone and photophone were fifty years ago.

It is not remarkable that the brilliancy of the sudden and enormous gains in the scope of the sciences of matter should have obscured the importance of the sciences of mind. Mankind have always studied first those phenomena which are most remote from themselves, and they have made steady progress towards themselves. Astronomy was a robust science, dwelling in secure round towers, when chemistry was born, and much more is known concerning chemistry than is known about the mind.

To such an extent have men been overpowered by the rush of new discoveries in physics that many have set about applying the methods of physical research to the phenomena of mind. This, of course, was a questionable process; but it is most natural that the quickening of mind produced by physical research should have extended over the whole field of thought, and that men should demand increasing economy in immaterial agencies when they saw the enormous gains in control and economizing of the forces of nature.

Those who think at all are becoming rapidly familiar with the methods by which physical science secures the most economical conversion of one form of energy into another, and are fretful over the results of school work. Without any thought of measuring an immaterial product by material units, it is yet impossible to avoid the effect which a habit of exactness in dealing with one form of energy has upon all thinking upon any other form. If by exact methods great economy has been secured in the conservation of physical energy, a reasonable and just demand is sure to follow for greater economy in the use of every form of energy. It is not difficult to explain the present critical temper of the public mind towards the public school on this principle; and this critical temper is full of omens of good, for criticism is directed, not against the end of the public school, but against the methods by which that end is sought; for, passing by the dreamers who would abolish discipline and have learning consist in an indolent absorption of agreeable information, and the wise men who would recall the mediæval seclusion of the learned, it is true that the masses of the people believe in public schools and sustain them by large appropriations in spite of recognized defects in the management of them. There is not the slightest indication in any quarter of any weakening of the faith of the people of the United States in the common school. Assuming, then, that the schools rest on a sure basis in the popular conviction of their necessity, I propose in this paper to inquire how the pedagogic energy now expended is uselessly dissipated, and how more of it can be converted into a better kind of man and woman.

A few definitions may help us.

Physical energy is the capability of doing work. It is either potential, as in a bent spring, when it can do work but does it not, or actual, when it does it, as in the spring released. The pendulum at the end of its swing has only potential energy; at the middle, only actual. Energy is the result of force. Of force we know nothing, except as it is revealed *in energy.*

Pedagogic energy is the result of teaching force. Of teaching force we know nothing more than that it is the power of one mind to awaken, keep alive, and direct a desire for knowledge in another mind. It is given in the structure of some minds. It cannot be imparted or acquired. At least there is no way known of doing this. It is an endowment akin in nature to that of the painter or sculptor.

It is often confounded with skill, but it is not skill, for this may be acquired by manipulation, as the skill of the file cutter or die sinker. Like any other similar artistic endowment it can be broadened by knowledge and deepened by training. Thoroughly well informed, discreet, enthusiastic, and conscientious persons can often simulate these traits and act upon other minds in a way much like that of a teacher, as Mr. Holley once won a wager by running an engine on a level track for a mile, without any fire or steam, by filling the boiler with compressed air. But the teaching force is instantly recognized when it is disclosed in pedagogic energy, though it eludes our analysis.

Like every form of energy, a large part of this is now dissipated. The conservation of energy is the conversion of the largest possible amount of it into other forms.

The end in view in a school is to make the most of the best possible teacher by giving his store of pedagogic energy free play upon the minds of his pupils.

All the many forces that are blended in a good school are auxiliary and subordinate to teaching, and are vainly spent without teaching. For example, the enthusiasm of numbers when not directed after it is awakened may result in squint eyed observation, in bad taste in reading, and in illogical reasoning.

Since our inquiries must be confined to the public school, let us put clearly before us the end in view of this school.

It has been urged, of late, that the only duty of this school is to teach children to read, write, spell, and cipher. This is obviously not the chief end of this useful institution. If it were, it could be secured at vastly less than the present cost. But while this may be conceded to be the direct object of public instruction, there is an indirect object of at least equal importance: I mean the formation of those habits of thought, that proper regard for the rights of others which can only be obtained through daily intercourse in the pursuit of a common end, and that habitual obedience to law which are the conditions of good citizenship in a republic, and an enthusiasm for righteousness. The public school exhibits worth as the only ground of distinction; it blends, in the formative training of early years, all those subtle but energetic forces that children from one rank exert upon those of another, and it gives full scope and efficiency to those leges non scriptæ which embody and transmit the net result of ages of civilization and enlightenment, so that the expense of teaching the worst scholar examined by Mr. Walton, for instance, would be amply justified, if that scholar should leave school now, by his enhanced value as a citizen at the age of twenty-one. For the full results of school life are not capable of measurement by an examination in spelling. The commonwealth cares vastly less about this boy's misspelling his words, making hieroglyphs for letters, and hesitating in his reading than about the kind of man he will be when he comes to vote. And while the kind of man he will be depends somewhat upon the joint action of the enthusiasm of many in a common pursuit, the family, the library, the church, and that most subtle power of personal character, it remains true that good teaching is the greatest and most influential force that acts upon him.

How to make the most of good teaching is the simplest form of our inquiry. Inquiring how teaching is squandered, I call your attention first to the lack of logical sequence in the kinds of work assigned to different grades in the graded schools.

Pupils reach the grammar school unable to add, subtract, multiply, and divide with rapidity and absolute accuracy, destitute of ability to observe natural phenomena sharply and to record their observations in clear and exact language, and with poverty stricken vocabularies. The grammar school is obliged, therefore, to leave its proper work and prepare for it. If all this work were done in the lower schools the grammar school could at once teach technical grammar, the science of arithmetic, and the lessons of history. These branches are referred to as those where reform is most needed.

Philosophers have urged again and again the reasons found in the nature of things for recognizing the order of the mind's growth and the faculties which predominate in childhood as the guiding principle in primary instruction, and they have been supported by a mass of testimony from successful and observing teachers; but hundreds of schools are now taught in ignorance or in defiance of these principles at an enormous waste of time and money.

Why should not technical grammar be excluded from all schools below the grammar grade? Why should not oral lessons in some natural history science—any one that the teacher knows or can be induced to learn—be substituted for the book lessons in grammar which are now inflicted on children, and managed so as to achieve and to secure that ease and fluency and accuracy in the use of words which are the essential quality of a good style?

A good deal of time is spent in our Massachusetts schools in reading; yet, those who examine boys for admission to higher institutions, or who guide their studies there, find that very few know how to read. Of course all know the common words and can call them by name; but very few know how to use books as sources of knowledge. Why should not the thorough reading of even one good author be substituted for the reading book in grammar schools, and so the shaping power of a good style be coördinated with other studies? All good teachers will *welcome the new departure* in library management by which pupils the common school are guided by their teachers in the choice of books and in the right and proper use of them.

To specify a practicable case, why should not reading be partly done out of some history of the United States, like Higginson's, and joined with brief exercises in narration, either oral or written? It is not necessary to furnish every pupil with a book. Two or three copies are enough. This exercise might profitably replace fully one-half the current drill in reading books, with the following advantages: The lively interest of the pupils would be excited, additional and most excellent practice in the use of language would be secured, and the *facts* of history would be fixed in the memory without much effort. This would make history teaching in higher grades a much nobler exercise than it is at present. It would also tend to cultivate a taste for good English by bringing the minds of pupils under the influence of a good author in successive lessons; for no better way could be contrived to arrest and paralyze any tendency to such a taste than the exclusive use of reading books, in which the unhappy pupil runs a muck between two rows of authors, who pelt him with prose from one side and poetry from the other.

There are schools where each of these proposed methods is on trial with such abundant good fruitage as to warrant serious attention to them. Why should not the work in arithmetic be courageously confined to acquiring skill, accuracy, and rapidity in simple computations up to the grammar grade? It is a just complaint that boys and girls who have graduated from the grammar or even the high school cannot add and divide with accuracy and promptness. And if any one can state any good reason why more than half the current requisitions in geography should not be abandoned, a large number of parents would be deeply grateful.

Another waste is the useless expenditure of time in teaching drawing, through all the grades, to every pupil. Somewhere, wherever the wisdom of school superintendents determines, this should cease, and those who evince marked aptitude for drawing should be gathered in evening classes for special instruction by an expert teacher.

Another waste is the enormous overloading of the primaries. A good primary teacher can teach thoroughly about thirty pupils; but the rooms in towns and cities where she has less than fifty are the exception rather than the rule. It follows that the pupils pass up without adequate training, the primary work must be done over, and, of course, the inadequacy of preparation increases at every stage.

It is the common judgment of teachers in secondary and grammar schools that they could do substantially all the work now assigned them if the primary work were well and thoroughly done. That it is not so done is not the fault of the primary teachers; at least it cannot be shown to be their fault so long as they are doomed to the tale of bricks without *straw.*

Nearly all the evils which afflict our public schools can be traced directly to a root in the primaries, and a reform here means reform everywhere. The great problem of public instruction is how to effect such a reform. If we propose to increase the number of primary schools we are met by the obvious fact that no great increase in the amount of appropriations from the public treasury can be expected. It is at least a striking coincidence which seems to have the cogency of a law that the amount expended per scholar in the public schools does not exceed the rate of taxation per thousand. It sometimes falls below this limit and sometimes exceeds it by a dollar or two; but whenever it exceeds, a retrenchment scene is sure to follow.

It is necessary, then, to do better work with the means now in hand. I think it easy to show that if each primary school that contains more than forty pupils were divided into two equal parts, and each part taught by the same teacher a half day for the same number of days as now, every pupil will be better fitted for the next grade than he is now, and the teachers would not suffer any greater loss of vitality than now. Probably the teachers would gain by the change rather than lose, in spite of the additional hour per day.

The unoccupied half of the pupils could be provided for in two ways: a large part of them would remain preferably at home; but the other part whose parents cannot easily provide for them must be gathered into half time industrial schools. This arrangement would put an end to what is now the gravest evil in the primaries, namely, the conversion of the school room into a place of temporary refuge for children whose parents are unable to care for them. There is no reason why the school should be turned into a day nursery. It is wiser and more simple to deal with the evil than to evade it. The public is bound to care for poor children. Let the school do its work in its own way, and let the best thing be done for those children who ought to be provided for at the public expense. Let us frankly introduce the *crèche* and not hide it under the guise of a primary school.

It will not lead us very far from the point we are now considering to suggest that in every grade of school teaching energy is wasted in proportion as the number of pupils assigned to a teacher exceeds a very low limit. The enthusiasm of large numbers in the pursuit of a common end is a most valuable auxiliary, and cannot be dispensed with; but, when class work begins, a very small number, ideally from ten to fifteen in a class, are all that any teacher can spend himself on without loss of energy. This, at least, seems to be the lesson of experience. The exigencies of the public school seem to fix the minimum limit at thirty. It is very common to hear good superintendents adduce a small number of pupils per teacher as proof of the soundness of his administration. But by far the most striking and instructive example of the advantage of small numbers is the work done at the United States Military Academy, at West Point.

It is most useful to study the results of the course of study in the

United States Military Academy as a problem in education. Boys are received on precisely the same grounds as give them admission to our high schools, are taught for the same number of years in the same essential branches, and emerge accomplished engineers, ready to cope successfully with the severe difficulties of military science; the boys emerge from the high school without readiness for anything except college. The difference is explained when the fact is stated that the teachers at West Point are selected for their known excellence as teachers, and no one ever undertakes to teach more than twelve students at a time. There is no evading the force of these facts.

West Point has done a better and nobler work for education than for arms, but this inspiring achievement in education has been strangely overlooked.

Let me not be understood as urging that West Point can be transplanted into our common schools or that it ought to be exactly imitated; but it cannot be forgotten that the Military Academy has been sustained by large appropriations by the people of this country through all the vicissitudes of party politics, because it has done well and thoroughly its appointed work. It is, in an important sense, a public school. The people, therefore, can be relied on to sustain good work. And the great example of West Point as a success in pedagogy may teach us that training is a higher end than the diffusion of information, and that the methods of instruction which have proved efficient and successful in any school are worthy of careful attention everywhere.

It is impossible to avoid alluding in its turn to the strange neglect of the memory in our public schools. Nothing strikes an American observer of European schools more forcibly than the easy recitation by pupils of extended passages from good authors—an exercise almost unknown among us. In reacting from the danger of overtasking the memory the pendulum has swung to the extreme of neglecting it.

Another waste of teaching force is the substitution of general intelligence for mastery as an end in view. The American boy now aims at knowing something about everything instead of everything about something, so that the number who come to real life with a consciousness of mastery is annually diminishing.

The quick instinct of students of social science detects this quality, and such inquiries as this begin to appear: Who will succeed the poets Longfellow, Lowell, and Holmes? The orators, Phillips, Curtis, Bullock—all men advanced in life? Are "great men" disappearing from politics? The weak answer is sometimes essayed that the average attainments are so high that greatness has become impossible—as if excellence were an absolute instead of a relative quality.

It is time to inquire with great earnestness whether our systems of public instruction have not begotten in us a certain confidence in the *educating* power of a system, apart from teaching, and whether in the *necessary* solicitude about school-houses, text books, charts, ventilation,

&c., we have not overlooked the fact that all these things are subsidiary to teaching, and without it are wholly futile.

I have sometimes felt a grave fear, when I have observed the immensity of our new school buildings and our carelessness about the school teacher, that the historian of education a thousand years hence will style this the age of the mound builders.

The words of Professor Weir, in the North American Review for January, 1881, deserve serious consideration:

> I declare it to be a fact that just as the prevalence of mechanical agencies in manufacture has destroyed all personal skill in handicraft, * * * so do these vast educational machines, when divested of personal sympathies and personal impulses, tend to a like result in developing the mind.

This want of mastery in the graduates from the schools is the grain of wheat in the bushels of chaff about the lack of practical worthiness in them.

How shall we render the course of study more practical? I answer, first, by taking out a good deal of it and securing something like mastery of the rest. A boy who has mastered a few fundamental things is far more likely to become soundly intelligent than one who has been mastered, as most now are, by a good many things. Fewer studies better taught is the remedy for this evil. There are two special cases under this head which deserve notice. The high school is said to unfit boys and girls for practical life. "It is for the good of the commonwealth that, while nature is yet plastic, children should acquire the manual dexterity and the habits of patient, persevering labor which are essential to their happiness and their success."

This is all true, in a sense. It is true in many cases that the high school graduates are fish hooks not bent on to any lines. But all attempts to cure this evil by introducing what are called more practical studies have failed. Book-keeping, laboratories, and cabinets leave the sore unhealed. The mistake lies in this substitution of smatter for knowledge, and if every high school scholar who is not fitting for college should conclude his course by reviewing arithmetic, including all business forms, in the light of all the algebra and geometry he has learned, his geography by the aid of his physics and chemistry, his history of the United States illuminated by all his acquirements in general history and civil polity, and his English grammar and literature in comparison with all other grammars and literatures he has any knowledge of, he would have a little real knowledge—a taste of the joys of mastery.

Thus reflecting upon the common branches which are so vitally bound up with the common concerns and interests of men the light of all the higher knowledge which scholarship can acquire, we shall brighten and clothe with a new attractiveness the labors in which the great majority must spend *their lives*—

> *Blessing toil,* where toil abounds, with graces more abounding.

The second special case is that of those who, justly dissatisfied with the apparent tendency of the schools to create a distaste for labor, propose to incorporate handicraft in the curriculum.

This measure does not proceed from a just comprehension of the nature of the evil it aims to cure, and will not be successful.

It is sheer weakness to lay to the charge of any school the unwise discontent with plain living, the haste to be rich, the foolish rivalries, and the general desire to secure a livelihood without working for it which are as old as civilization and apparently inseparable from it.

Boys and girls always have sought to win the easier and more agreeable employments. They always will do this. The irreverence of youth, enhanced as it is by the relaxation of family discipline, and their impatience with the slow and toilsome beginnings of all solidly built lives, need to be restrained by patiently showing and illustrating and enforcing the more excellent way of obedience, industry, and method; but it is not a ground for sudden and novel changes in school systems. It is aggravated by the monstrous defects in home training and by the pollution of the atmosphere with filthy literature, but it is somewhat corrected and relieved by the regular sober discipline of the public school. For the only hope of success in this world lies in obedience to law; the only preventive of idleness is a habit of industry founded on an obedient spirit. Otherwise, skill in handicraft is no security against thriftlessness or vice. Every one who is at all familiar with large manufactories knows that one of the constant drawbacks is this: many skilful men, upon whom at critical moments everything depends, are liable to be overcome by appetite, and waste in idleness time which is more precious to employers than to them.

The real practical question is, whether the youth who seek the avenues of trade shall be intelligent and thoughtful citizens, able to bear adversity with courage and prosperity without exultation, or brawling grumblers in hard times and foolish dreamers in good.

Again it is urged that youth would be allured to the mechanic arts by daily familiarity with them in the school room, and those endowed with aptitude for handicraft would be detected by the test and assigned each to his proper calling. This result, if attained, would only prove a good so far as skilled workmen were evoked by it; for there is already a great excess of unskilled labor. But why create new attractions when the old are great and mighty? What assemblage of mechanical processes could be made in any building to affect the imagination or wake a slumbering aptitude which could compete with the exhibition which every town presents? The air is lurid with the smoke of countless furnaces; every stream is worried with dams; the din of machinery on the grandest scale sounds an incessant call; thousands of workmen go as daily messengers between the shop and home, and make familiar in daily speech the marvels of mechanical achievements. No sober and inquisitive youth is denied access to mechanism of unbounded variety and interest. This spectacle is not limited to a few hours of a crowded school day; night and day are filled alike with its wonders.

Libraries abound in biographies of the great inventors, and every thoughtful boy can feed his imagination with the achievements of Arkwright, Whitney, and Bigelow. This is the real developing school. This face to face communion with men of like sympathies and passions excites the growing boy more than lathes and engines and spindles. In the peaceful fields of mechanical triumphs, not less than on Marathon, the trophies of Miltiades will not permit a single young hero to slumber.

The ranks of skilled labor in ordinary times are never crowded; but a reasonable man will pause before urging a scheme which must end in increasing the number and diminishing the intellectual resources of unskilled mechanics.

Consider again that this demand for a class restriction in public education does not spring from mechanics and manufacturers, but mainly from those who have been able to command whatever education they desired, and it is very much to be feared that the gentlemen who urge this plea of overeducation, and propose manual training as a cure for it, are, perhaps, unconsciously cherishing the illusion of class education in a republican state, and must be challenged to answer Madison's question, "Why should we, here, in the realm of knowledge or in the public provision for the education of all, divide society into classes upon the ever vanishing line of rich and poor?"

And consider that mere manual training will not suffice. It must be allied to machinery to be effective, and the teachers of our public schools will presently find themselves superintendents of machine shops; otherwise the graduate of the school is in danger of turning out a tinker. If you still claim a disciplinary value for the proposed manual training, this will not be denied. Neither will any one claim that every hour spent in school workshops is so much actually subtracted from the result of school training. But it is not, on the other hand, so much added; and it is incumbent upon the reformer to show what the actual gain to society is through handicraft to balance the necessary loss in intellectual training. The average pupil of the public schools now receives, at the public charge, 166 weeks' instruction of 30 hours each, or about 3 years. Is this too much?

This has not been shown, and I do not think it can be. If it be demanded that the public school should cultivate and enforce habits of industry, self restraint, personal independence, and regard for others' rights, or if it be claimed that the public school can be improved, no one will demur. Great improvements are making, and more can be made; but it is one thing to relieve the difficulties of a good and useful institution and another to aggravate those difficulties by increasing, without improving, the labors imposed upon it.

(1) The general intelligence which springs from the State school is as indispensable to a good market for the products of our manufacturing

skill as it is to that skill itself. We export cheap prints only to the ignorant populations of Africa and the South Seas; but only the finest products of our most skilful workmanship can enter England and the continent of Europe. The home market is equally sensitive; and if we want to sell what our skill produces, we must not paralyze the market.

(2) The amount of school time cannot be much increased. Whatever is taken from it for handicraft would be subtracted from the effectiveness of the school in other directions; and the actual amount of instruction which the average child of the working classes receives has already been shown to be too small rather than too great. By introducing handicraft, supposing it feasible on other grounds, we should do a great wrong to the average scholar and a great injury to handicraft. And consider how trifling at best is the amount of real craft a boy could get in a State school. It would vanish like the frosty coating on the iron which, in a winter morning, he carries to his forge. Knowledge of tools he can easily get in his shop after his school is past, and all the easier for a sound school training. But how, or where, or when shall he repair his loss of the things the school should teach him? These precious hours once gone are gone forever.

It is better, then, to pour all possible vigor, intelligence, and hope into the nerve of the arm which is to smite the anvil than to clothe that arm with any momentary gloss of unserviceable dexterity.

(3) The atmosphere of the school-house is unfavorable to handicraft. The sort of workmen and the sort of work by which an artisan is surrounded during his period of training have even a larger share in determining the quality of his skill than the environment of a school in the formation of character. Workmen trained in any well known shop bear the unique inscription of that shop almost as plainly as the fabrics whose excellence gives at once its reputation to the shop and special value to the services of the men. Workmen not infrequently deteriorate when transferred from a better to a poorer shop. The environment of handicraft is a matter of vital importance.

Again, it is essential to success in teaching the industrial arts blended with intellectual training in a school course that the two should be started and carried on with harmony and equal prominence. The school must have but one end, and towards that all its forces must move. Nothing can form any part of the school which does not share its common life and partake of its common advantages. The parts of a good school are like the parallel bars of a compensating pendulum, the contraction of one balancing the expansion of another to give the exactly measured swing of perfect synchronism.

Only a small part of the pupils, under the most favorable circumstances, would take this practice of choice; and it could not be enforced upon all on any principle of equity. No Carthusian vow can be imposed upon the youth of the public school. The result must be the appearance in the school of a caste, which would be instantly fatal.

All manual training in the use of tools given in this unnatural atmosphere would be feeble and ineffective. The inadequacy of the scheme would be detected more quickly by the pupils than by supervisors, and would engender disorder and discontent.

Neither philosophy nor the common sense of the people decides that manual training is necessary for all pupils or essential to the public welfare; therefore the people cannot justly be taxed for the direct support of institutions which benefit only a class.

The first method applies in practice only to reformatory institutions. Beyond that, the state may and should foster by grants all useful institutions, and directly support through annual taxation only those which are essential to its perpetuity and which could not safely be left to private management. These latter are the public schools; and, while the exact line between essentials and non-essentials in public education has not been clearly drawn, yet the term "public schools" is sufficiently clear and distinct for all practical purposes.

We reach the conclusion, then, that the union of handicraft and school must be committed to special schools of technology, founded by private munificence and directed by permanent boards of management.

(4) Time forbids me from enlarging upon the waste of energy caused by inadequate libraries. This want grows less severe each year. Indeed the growth of the free public library as a means of utilizing the intelligence which the schools create is one of the features of our times.

(5) But all that has been said prepares the way for urging as the last form of waste the inadequacy of the preparation of teachers for their work and of proper supervision. The teacher is, after all, the school, and the school the teacher. Without this force all other allied forces slumber like the chemic forces of the plant till quickened by the light Great attention is given, and too much cannot be given, to the professional education, selection, and supervision of teachers.

But it has already occurred to some that the force of the teacher is not all commuted into knowledge, but that a large part is spent in enthusiasm—the affiance of light and heat. A good teacher can no more fail of enthusiasm than the sun can shine without heat. But the heat of enthusiasm is not to be disjoined from the light of knowledge.

" The public schools are the people's universities," it is said, and we must give them a taste of everything that anybody knows. But the people have a right to knowledge and will not be denied it, and the people will in the end hold those to strict account who, charged with the solemn duty of providing what is best, took counsel of expediency or of fear. The people expect educators to recommend such measures as philosophy dictates, experience approves, and common sense supports.

After the reading of this paper the chairman gave an opportunity to any who might desire to discuss either this subject or the subject of the morning.

Superintendent Jones, of Erie, Pa., thought that the Military Academy at West Point, though a school supported at public expense, had two or three advantages over most public schools: it could compel its pupils to take its course of instruction entire; it dealt with healthy pupils only, and it could eliminate the stupid or vicious from among them; whereas public schools are obliged to instruct children, healthy or sickly, bright or stupid.

School Commissioner King, of Richmond Co., N. Y., thought that West Point could be abolished and that just as high a grade of officers would come up, and that, too, from the public schools. There should be more competition among line officers. In his opinion if the positions in the Army were thrown open the public schools would furnish officers as good or better than now come from West Point.

Mr. Northrop said that America had received a full equivalent for every penny expended on West Point, and the idea that any public school could take its place was preposterous and absurd.

J. G. Murphy, of Fishkill, N. Y., advocated the use of the perceptive faculties. He said that all children should not be treated in the same way; that a school of thirty pupils would have from three to seven different classes of capacity.

Dr. Thompson explained that he presented West Point as an institution to be imitated by the public schools from the fact that it had done thoroughly and well the work it had undertaken. Students entered West Point at about the same age that they enter the high school, but much more is accomplished at West Point. Teachers who desire to accumulate teaching force he thought would do well to study West Point.

After a recess of five minutes Dr. Franklin B. Hough, chief of the forestry division, Department of Agriculture, Washington, D. C., read the following paper:

OUR SCHOOLS AND OUR FORESTS.

In presenting a subject with this title, the question might be asked by some, "What possible connection can be traced between our schools of learning and the woodlands of the country?"

The Germans term a nursery of young trees a Baumschule, a "tree school," and nobody will deny the strong analogy that exists between the early direction imparted to the young scholar in our schools and the young seedling of the nursery bed, both alike receiving in the tender and susceptible period of life's beginning certain tendencies that influence all that follows to the end. This analogy was forcibly expressed by Pope in the familiar lines:

> 'Tis education forms the common mind,
> Just as the twig is bent the tree's inclined;

and imaginative writers have in all ages and in every language found apt opportunities for illustrating the various phases and vicissitudes of human life by what may be learned from a tree. But dropping these fanciful analogies, which the active mind may follow to infinite extent, we will at once enter upon the more serious consideration of a subject that is beginning to attract the notice of thoughtful men, viz, the rapid diminution of our forest supplies and the means by which the wants of a near future must be supplied.

We assume that no one will deny as facts that the woodlands of this country are being cut down and used or are suffering from waste in a much greater degree than they are being restored by natural growth; that the maintenance of a due proportion of forests is highly important, in fact indispensable to our wants, and that this limit has in many sections of the country been already reached and passed.

We think no one will deny that the clearing off of woodlands causes the springs and streams of a country to diminish and often disappear in summer; that the channels of mountain streams become eroded by torrents when the forest protection is removed; that streams once perennial and nearly uniform become liable to great alterations in volume and to sudden overflow in heavy rains; that the supply of water for cities, for hydraulic power, and for navigation becomes irregular and deficient at seasons of the year when most needed, and that our fields, unshaded from the sun and unsheltered from drying winds, become liable to destructive droughts.

But, besides these secondary effects, we should especially notice the growing scarcity of wood and timber as a material for use and an article of commerce in regions where it was once abundant, and the effect of this upon their prices, which are constantly tending to further increase as these supplies become less.

In view of these facts let us at once proceed to inquire as to the duties of our schools in reference to our forests. This question of forest supplies has for a long period engaged the attention of governments older than ours, and we should be able to profit from their experience, applying such modifications as differences in government and circumstances may suggest in order to adapt them to our own peculiar wants.

We find in Europe that in every principal country upon the continent the woodlands belonging to the government and to local municipalities and public institutions are under the care of a special branch of administration, which not only looks after their management to prevent injury or waste, but has for its especial duty to secure the restoration of forests when cut at full maturity or at appointed times, and this by means which shall most effectually secure the greatest possible benefit that the conditions allow. This management implies the necessity of a well organized corps of agents specially educated to the duties of their profession, and for this preparation there have been established schools of forestry in every country that has a forest administration, and these schools have been provided with full appliances for rendering their operation complete. At these schools of forestry every branch of science that finds applic tion in the cultivation and care of woodlands is taught and illustrated by excursions and practical labors in the nurseries and forests connected with the establishment. The attainments of the student are tested upon entering and at leaving, as well as at various stages of his progress, and at the end of his prescribed course he is ready to enter the forest service upon a subordinate grade, from which he may rise by successive steps to more important stations. Finally, having spent his working years in the service, he is entitled to retirement upon a pension; and, if his career has been one of especial merit, honors and distinction are awarded him.

As the course of instruction in these schools is strictly technical, the range of studies extends no further than to include the sciences that concern the forester's profession, including the legislation and jurisprudence of the forest code, the details of official business, and a knowledge of his duties in the transactions that may come before him in the various stations which he may be called upon to hold. The course varies somewhat in different countries, owing to differences in their forest laws, but it is substantially the same so far as depends upon mathemathical principles and upon the natural and physical sciences that are taught.

To illustrate the range and extent of the course, we will present a list of the professorships and of the studies taught by each in the Forest Academy at Tharand, in Saxony, one of the oldest in Europe, and therefore one in which we may expect to find the fruits of long experience embodied in the course of instruction now in use.

This school was begun at Zillbach in 1786, was more formally established in 1795, was removed to Tharand in 1811, became a public institution in 1816, and from 1830 to 1870 was a school of agriculture and forestry combined. For the last ten years it has been a school of forestry only, and has an attendance of from fifty to seventy students, almost one-half of whom are foreigners attracted thither by the excellence of opportunities and ambitious to qualify themselves for the position of foresters to large estates or for employment in the forest service, now becoming more common under colonial governments. There is as yet no school of forestry in Great Britain, but much attention is now being given to the conservation of forests in India and other remote British colonies, and the agents aspiring to these appointments must resort to these special schools upon the Continent, whereof Tharand gets a considerable share.

The academy is under the ministry of finance, and its course of instruction extends through two years and a half. The student must show upon entering, besides certain qualifications as to age, means of maintenance, &c., the attainments implied in a full course of study at a Gymnasium or a Realschule, and if he aspires to the Saxon service he must have worked half a year under approved instruction in a forest. The course is divided among ten instructors, as follows: (1) the director, who teaches the history and literature of forestry, forest regulation and improvement and police, and leads in certain excursions and practical exercises; (2) a professor of arithmetic, algebra, and geometry, and their applications to forest work and mechanics, accompanied with mathematical exercises; (3) a professor of chemistry and chemical technology, agricultural chemistry, and laboratory work; (4) a professor of physics, mineralogy, and geology, who leads excursions in the application of these studies; (5) a professor of forest cultivation, protection, and administration, hunting, and forest taxation, with practical excursions and exercises; (6) a professor of general and forestal botany and vegetable physiology and microscopy, with exercises and excursions in natural history; (7) a professor of surveying, road making, draining, the calculus, &c., with excursions in surveying and measuring; (8) a professor of general forest industries, forest finances, and an encyclopedic view of agriculture, pasturage, &c.; (9) a professor of zoölogy, and especially of entomology; and (10) a professor of law and forest jurisprudence.

There are connected with the academy a large library, an extensive and valuable cabinet, a forest garden, and a forest district in which all the practical details of regulation and management are going on and with which the student must become personally familiar.

At the French school of forestry, at Nancy, the student must learn something of military discipline and regulations, and in the Russian schools of forestry the military organization is carried still further and pervades the whole forest service.

At Eberswalde, in Prussia, one of the best of forest academies, 2,648 hours are given to instruction, extending through two years and a half, or a little less than five hours a day, of which 840 (about 32 per cent.) are given to the natural sciences, 440 (about 16 per cent.) to mathematics, 980 (about 36 per cent.) to the economical sciences, 180 (about 6 per cent.) to jurisprudence, and 340 (a little over 10 per cent.) to exercises and excursions.

The following is proximately a list of the schools of forestry now existing in Europe:

(1) *Schools of forestry alone.*—In Prussia, one at Eberswalde and one at Münden. In Saxony, one at Tharand. In Saxe-Weimar, one at Eisenach. In Austria, secondary schools at Weisswasser in Bohemia, at Eulenburg in Moravia, and at Lemberg in Galicia; lower schools at Aggsbach in Lower Austria, at Wildalpen in Styria, and at Kreutz in Croatia. In France, one at Nancy and a School of Forest Guards at Bavas. In Italy, one at Vallombrosa. In Spain, one at San Lorenzo del Escorial, near Madrid. In Russia, one at Evois, Finland. In Sweden, one at Stockholm.

(2) *Forest departments in universities and polytechnic schools.*—In Bavaria, at Munich (lately a separate forest academy at Aschaffenburg, *which is still in part* retained); in Hesse-Darmstadt, at Giessen; in

Baden, at Carlsruhe; in Brunswick, at the Polytechnic Institution; in Switzerland, at Zürich.

(3) *Academies of agriculture and forestry.*—In Austria, at the special high school, at Vienna; in Württemberg, at Hohenheim, with a special course at the university in Tübingen for those aspiring to a place in the administration; in Russia, one near Moscow, one at St. Petersburg, and one at New Alexandria in Poland, with a special school of applied forest industries at Lissano; in Portugal, near Lisbon; in Denmark, at Copenhagen.

(4) *Academies of mining and forestry.*—In Austria-Hungary, one at Schemnitz. Besides these special institutions, about thirty in number, at which the profession of forestry is made a particular object of instruction, there are a multitude of others in which the importance of the subject is recognized and more or less provision is made. Thus, at three of the agricultural schools in France, an agent of the forest administration is detailed for this instruction, precisely as our own Government details officers from the Army for giving military instruction in some of our colleges. There are at least seven schools in Sweden at which a course of one year in forestry is taught, and ten years ago there were thirteen elementary schools of forestry in that country.

A few years after the Crimean war the Turkish government undertook to establish a school of forestry at Constantinople, and one has been founded recently in India, for the purpose of fitting the agents of the government for an intelligent performance of their duties.

Such being the provision made in other countries for supplying an educational want in their public economy, of which they had felt the need and without which they would have suffered an injury, let us next consider how our circumstances compare with theirs and what are our duties in view of the prospect before us.

As for our wants: If we take into estimate the prairies and the plains, as well as the immense clearings in the older States, we shall find, probably, in the whole country, a relatively smaller percentage of woodlands available for us than that of either France or Germany, where the organization of the forest service is the oldest and most complete, and in some of our newer States and Territories relatively much less than the most poorly supplied country in Europe. It is true that our native supplies are very unequally distributed, and that in some regions they are largely in excess of the present local want. In other sections of the country the timber is at present altogether inaccessible by any existing means of transportation, and in others it is so remote that the expense of freight cannot be borne until the present market prices have greatly advanced, and it will be a sad day for those concerned in the wood industries, and for their patrons, when the time shall come that it will be necessary to bring lumber and timber from these distant points.

As already remarked at the beginning of this paper, the use and waste of forest products far exceed the growth, and this disparity is every year increasing as new demands arise for local use or new markets are opened for exportation. It is therefore among the plainest of certainties that our people must in the near future feel the inconvenience of greatly enhanced prices and among the strongest of probabilities that they will then begin to realize the profits from the growing of timbers. To do this to advantage they will need a certain kind of education that our schools do not now provide, for, although there may doubtless be hereafter a great deal of empirical planting, just as there is of farming, without the planter being able to assign a better reason for his methods than that his neighbors do likewise or that his father did so before him, it is now too late to deny, and it is quite needless to prove, that in tree planting as in every other pursuit in business the man of best education attains the greatest success.

It is within the knowledge of every one that our native forests present great diversity in their timber growth. In one locality we find the maple or the oak; in another, the ash or the elm; in another, the hemlock, or the pine, the chestnut, the cypress, or the walnut, as the prevailing kind; and this difference will always be found due to the favoring conditions of soil or of subsoil, of subjacent rock foundation, of humidity or dryness, or of elevation or aspect that suit the wants of these particular kinds. It may often happen that a species from another region or country may prove even more thrifty and profitable than any that are found growing in a native state, and in planting a prairie region where no timber has grown, at least within the period of our memories or traditions, it is of the very highest importance that these capabilities and preferences be well understood beforehand. If we commit an error in the sowing of a farm crop the failure will not extend beyond the first year, and the farmer deserves no sympathy who will repeat his error in the next. But timber trees are at best of but slow growth, and a lifetime might be lost in waiting to see the unprofitable growth of a tree ill adapted to its place, while a more intelligent choice and management would have brought a revenue to the planter. But what is our need from an educational standpoint and what is demanded of our schools in the interest of the forests? Will any of the foreign systems apply to our wants, or, if not, what modifications do we need to meet the requirements in prospect? Let us see how the circumstances differ.

In every foreign country where systems of forest management exist there are large areas of woodlands belonging to the government and to communes or other local municipalities and to public institutions.

The inhabitants of communes often enjoy rights of common usage, either in the way of fuel and building material, or in the gathering of seeds and fruits or of fresh leaves for feeding or fallen leaves for bedding their stock, or rights of pasturage, or some other privilege which has been secured to them by statute or confirmed by customs stronger than law. The management of common rights presents some of the most *difficult problems* with which the European forester has to deal.

forms a branch of special instruction in the schools of forestry, and it often becomes so serious a bar to improvement that these privileges must be bought off, commuted, or exchanged for some equivalent benefit before a reform can be secured.

In many European forests certain kinds of game are reserved for the enjoyment of a privileged class, and their care and protection come within the forester's duties and form a part of his education, even where their presence works an injury to the growth of the timber he is bound to cherish and proves a scourge to the neighboring farmer, who is forbidden under heavy penalties to injure the animals that may be destroying his crops and, it may be, further forbidden to fence his fields if it should hinder pursuit by those who may join in the chase.

In some instances the government in former times reserved the first choice of timber for its navy, and might even take what it needed where most convenient, not sparing the lawn tree or the avenue planted by ancestors, if the caprice or the convenience of officials so decided, and there are still some rights of preference and some restraints upon private usage that may prove burdensome to the landholder. Finally, there are tenures and limitations upon the title to lands that may embarrass or wholly prevent an industry that brings only a remote benefit; as no tenant would ever plant a tree that could only be cut after his lease had expired or make any other improvement that he could never enjoy. Now, our circumstances as regards the ownership and tenure of the land are as follows:

The National Government has indeed some valuable tracts of timber land which it should lose no time in putting under a management tending to secure the greatest benefit to the present and the future; but our States own no land (except as granted for special objects) and it has hitherto been the policy of both the general and the State governments to transfer their lands to the actual settlers as soon as possible. In fact, all the land in the older States and much of it in the newer States and Territories has already become private property under titles that are absolute and unconditional. Fortunately we have no rights of common usage in our woodlands, no rights of preference in their timber, no privileged classes having rights of chase upon the lands of vassals, no game but such as the owner of the land may choose to own or allow, and no hunting but such as he may permit or forbid. Our schools will therefore never have occasion to teach a forest code or the jurisprudence that may arise under it. They need pay no attention to game except as the state may enact laws for its protection in the interest of agriculture or for other common benefit; and until a time shall come when our forests reserved for the supply of the timber market are owned by great corporations, having the stability and capital that give assurance of permanence, there will be no great opportunities for applying plans of *aménagement*[1] that shall govern the future working of a young forest upon a private estate, until it comes to full maturity, for the use of generations unborn.

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[1] *Technically* used in France for the legally regulated cutting of forests.

The graduate of a European school of forestry would scarcely find use for the education he had acquired beyond his training in the physical and natural sciences and in mathematics were he placed in the most responsible trust that our forest owners could offer; but in these branches the general principles are alike the world over, however codes may vary, and his success with us, as elsewhere, would be in direct proportion as he had learned to apply these principles to the conditions he might find and to appreciate the modifications in management that new circumstances might require.

The education that our country requires in the interest of forestry (and which, from present prospects, our schools will ere long be called upon to supply) will not, in our opinion, be so much of a thorough and exhaustive kind for the special benefit of a few as of a more general and elementary character that shall come within the reach of many. We need first and most of all, not simply in our schools, but throughout our whole country and especially among the rural and agricultural classes, the diffusion of the simplest principles of political economy that teach the importance of our woodlands to the general welfare and the need of the material that they furnish for the supply of our indispensable wants in life — a due appreciation of the incidental benefits which our woodlands secure to agriculture and to the sanitary and industrial interests that depend upon an adequate and duly equalized water supply.

These utilitarian ideas are not in the least degree inconsistent with a due appreciation of the beauties of woodland scenery and the full enjoyment of all that is lovely in rural landscapes and forest shade. The forester looks with pride and pleasure upon the tree or the grove that his hand has planted, and as he watches its growth from year to year he cannot fail to acquire an attachment for the scenes and solitudes of a woodland life.

To realize how much of the imagery of the poets and of beauty in landscape painting depends upon sylvan scenery and rural associations, we need but imagine how blank and dreary would poetry and painting be without them. Whatever tends to cultivate and extend this appreciation of the beautiful in nature is so far in direct advancement of forestry, and it may be proper to here consider some of the means by which this may be done. We know in every phase of life, in every pursuit of business or of pleasure, in every usage of society, how much mankind are influenced by the example of others. In some things we call this tendency to imitation a fashion and in others a custom, and in neither case can any better reason be assigned for the imitation than that it is the practice of others.

We have an interesting example of a widespread and lasting custom *of tree planting in* English history. There is at present no country the world where there is such an abundance of trees planted for ornament as in England. The well kept parks and landscape views presented upon the estates of the nobility and the landed gentry are the pride of their owners and the admiration of travellers. This taste for rural ornament is largely due to the efforts of Sir John Evelyn more than two hundred years ago. This writer was an especial favorite at the court of Charles the Second and, as remarked by a subsequent editor of his writings, "from an early entrance into public life to an extreme old age he considered himself as living only for the benefit of mankind." His best known work, entitled "Sylva: A Discourse of Forest Trees," acquired great popularity, as shown from the large and frequent editions that appeared during the author's life, and the permanence of this interest is further proved by the many later editions which have since been issued, almost down to the present time. Under the impulse and advice of Evelyn, the king and the nobility of that day began extensive improvements in planting their estates, and the example thus set became a widespread fashion among landed proprietors throughout the kingdom, which has continued down to the present time. We have evidence of this immediate and effectual impression made by the writings of Evelyn in a dedication to Charles II prefixed to one of the later editions that appeared during the author's life, in which he says: "I need not acquaint Your Majesty how many millions of timber trees, besides infinite others, have been planted and propagated throughout your vast domains at the instigation and by the sole direction of this work, because Your Majesty has been pleased to own it publicly for my encouragement;"[1] and no more striking or beautiful tribute could be paid by a man of genius to one who had worked so lovingly for the good of his fellow man than was that by the elder Disraeli in his Curiosities of Literature, in which he says: "And surely while Britain retains her awful situation among the nations of Europe, the Sylva of Evelyn will endure with her triumphant oaks. It was a retired philosopher who aroused the genius of a nation, and who, casting a prophetic eye towards the age in which we live, contributed to secure our sovereignty of the seas. The present navy of Great Britain has been constructed with the oaks which the genius of Evelyn planted." There is something, indeed, in a noble park that betokens stability and opulence in the owner, and there can be nothing more flattering to family pride than to point out a grand avenue of majestic trees that an ancestor planted. We need not travel far nor seek long for illustrations of this feeling in our own country, for a man can scarcely plant a tree upon his homestead lawn without ever afterwards looking upon its growth in size and beauty with satisfaction. If an accident happens to it he willingly spends much more than its simple value, if within the possibility of remedy; or if maliciously injured he will resent it as if it were a personal *injury.*

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[1] *Disraeli's* Curiosities of Literature, vol. II, p. 326 (New York, 1871).

It has sometimes been a custom to plant a tree to commemorate an event. It may record the nativity of a child in a family, or the visit of an illustrious guest, or some memorable event in history. Thus in the ancient Dutch city of Albany there are now great trees in the streets coeval with a present or a former inmate of the dwelling opposite and an aged elm that was planted to commemorate the arrival of General Burgoyne as a prisoner of war soon after the surrender of Saratoga. Throughout the length and breadth of our country we have trees planted during the Centennial year; and whenever a historical event is connected with a tree the tree becomes ever after an object of interest while it lives. The Royal Oaks that sheltered Charles the Second, the Charter Oak of Hartford, and the Treaty Tree in Philadelphia were monuments while they lasted and were cherished as relics when they fell. Of similar but more local interest are the class trees on our college grounds and the trees planted on special occasions to commemorate interesting local events.

The promotion of a taste for rural adornment and ornamental planting being an object worthy of our earnest effort, as well from the æsthetic culture and refined enjoyment they secure as from the favorable influence that they exert upon plantations for utility, let us inquire as to the means by which this object of manifold advantages may be best secured.

In our cities and large towns public parks are now very generally recognized as important agencies for the hygienic welfare and personal enjoyment of their inhabitants. The responsibility as to their management is naturally vested in the municipal government, and should be in charge of a special commission, upon whose intelligence and efficiency their success depends. The influence of public parks upon the general welfare should be more fully appreciated, and there are many cities of large and dense population where these improvements have not yet begun. In others, where a beginning has already been made, the need and opportunity of a barren waste, a river bank, a shore, an island, or a point of land within or adjacent to the city limits has not yet been noticed, where a moderate expense might secure a little paradise of beauty and an inviting place of rest. The grounds around public institutions, in rural cemeteries and the like, might often be made more agreeable to the eye if the opportunity for improvement were pointed out and sufficient means allowed. The interest in city parks might often be greatly increased by greater variety of species and by correct labels of their names.

In villages we find greater opportunities for individual action and abundant advantages from a concert of effort which it is the special province of village improvement societies to secure. I am well aware that others present have given much attention to this class of associations, in which the efforts are sometimes not limited to the material welfare of *their localities but* extend to intellectual improvement and refinemen in social life. They deserve our highest commendation and support, and the educational bearings of these efforts are too obvious to require special notice.

The example of one village becomes the pattern of another; and should emulation arise between neighboring villages, we would not have it checked until each has outdone the other in rural adornment.

From large villages the example tends to imitation in the smaller ones, where, although the means may be less, the opportunities of space may be relatively greater, and from these to private homesteads throughout the land. Although the intellectual and social refinement arising from these customs deserves first mention among their advantages, we may notice that they tend to enhance the value of the property that they adorn. They render a village more desirable for residence and invite the notice of those who, having earned a competence in the cities, are seeking to retire to the quiet shades of rural life, that still present attractions for intellectual enjoyment and the amenities of a refined neighborhood. The farmer who would wish to enhance the market value of his land could not invest more profitably than in trees; and it will be fortunate if he early learns the useful fact that there are corners and waste places in abundance, now unproductive and unfit for other cultivation, that present the most favorable conditions for the growth of forest trees.

The man who has cleared a farm out of the forest seldom or never plants a tree. He has come, from long custom, to look upon trees as an incumbrance to be removed; and whenever his home presents a noticeable amount of sylvan shade it is more likely to be the work of a younger generation, who have no sympathy with his aversion and a better idea of the comforts of home life. Americans have been reproached for having but slight attachment to the homes of their childhood; and this willingness to sell to a stranger the land that a parent has cleared and cultivated, and on which their own early years have been spent, has been ascribed to a certain instability of character and an uneasy desire for change.

There is doubtless a strong affinity between a love of home and of country, and it is true that an attachment to a homestead because of ancestral possession and family associations would greatly tend to increase our national prosperity and happiness. It would lead to substantial investments for permanence and future enjoyment that the transient and speculative owner would never make, and it would tend to the more solid foundation of our public institutions generally. The man who settles temporarily for business and expects to depart when he becomes rich, spends no money upon public libraries and cares nothing for the charitable and educational establishments of the place, provided they do not burden him while he remains. His influence will generally be adverse if these objects require expenses that bring no return during his stay, and he will prefer temporary expedients to permanent investments if they but serve to bridge over the time of his sojourn. The solid and substantial foundation of our institutions is laid by those having a permanent interest in the prosperity of the places where they are located. It is this class alone that erects monuments and that leaves evidences that its members have lived for the welfare of those who are to come after them.

It is a point worthy of inquiry as to whether much of this indifference to the home of childhood and to the possessions of ancestors with which Americans have been charged is not due to their bleak and cheerless surroundings.

We cannot doubt that the influence of a pleasant rural homestead and the choice memories of refined associations in early youth are as capable of making as strong an impression upon our native population as in any country whatever, and although in the absence of laws of entail and under the impulse of adventure or motives of interest or the force of circumstances a change of ownership may often happen and the choice and cherished homestead become the property of a stranger, still the chances become less as the attractions are greater, and a motive worthy of earnest and honorable effort is presented in favor of maintenance in the family line.

From this form of education by example, tending to promote a taste for rural planting and the enjoyment of rural scenery, which cannot fail to promote a more general plantation for utility, let us next consider the direct educational appliances that should be supplied in our institutions of learning.

Commencing with our colleges, we almost uniformly find, except in large cities, that they have sufficient land around them to justify a certain amount of planting and often facilities for a first class arboretum. Instead of the plantation of one or a few species, it would be better to group together, in their natural relations, as great a variety of species as the soil and climate would favor—thus affording a ready illustration for comparative study and the means for becoming practically familiar with the characteristic features of each. Of course each species should be correctly labelled with the scientific as well as the popular name and it would be still better if the synonymes and the names in the more important foreign languages could be known. This object lesson would still be but imperfectly learned, unless the student were required to know the leading facts concerning the native region, geographical range, uses, and best methods of propagation of each species under observation; and he should be able to point out the characteristic features of each. Our agricultural colleges should be required and the best endowed of our colleges should be induced to establish nurseries for the propagation of trees and for experimental study, and cabinets of wood specimens and wood products, with illustrations of the foliage, the fruit, &c., should be provided.

In teaching the sciences of geology, chemistry, botany, zoölogy in its various branches, and climatology, their relations to forestry should be clearly defined and their application shown. We have already noticed the prominence that is given in European schools of forestry to practical exercises and excursions under the guidance of teachers, with the view of rendering the student thoroughly familiar with the subject of his studies and qualified to judge and act intelligently when thrown upon his own resources in after life. There can be nothing more rational or effectual in education than this, and in nothing in the whole plan of our system of education has there hitherto been so much neglect. No person should deem himself qualified to teach a science that he cannot illustrate in its applications as they appear in nature or are employed in the industries; and we would most earnestly commend this point to your thoughtful consideration as a deficiency in our system of education that should be supplied. We are aware that chemistry, engineering, and to some extent the natural sciences are thus practically taught, but we would have the method extended to far greater degree than has yet been attempted. Finally, our college classes, before graduation, should enjoy the privilege of some instruction, if only in a course of a dozen lectures, in which the general subject of forestry should be presented. These lectures might include a brief historical outline of the subject; a notice of the codes of administration in various foreign countries; their methods of management in the ordinary course of forest culture and under exceptionally difficult conditions, as for example upon mountains eroded by torrents or upon drifting sands; the various modes of extraction and transportation; forest police; the prevention and control of fires; the means employed for limiting insect ravages and other injuries; the usages of commerce; the economies that apply, and the question of supply and demand.

In this outline of what might be taught in our colleges, excepting the labelled collections of living trees and cabinets and excepting the special lectures upon forestry, I have suggested nothing but what our existing organizations ought to be able to supply, and this without materially adding to the duties already assigned. The application might require some preparation on the part of instructors to familiarize themselves with these duties and some modification in our text books, or, what would be better, a manual specially adapted to this subject that does not as yet exist in our language, but which could be readily supplied.

Descending from our colleges to the academies, a modified form of the course above sketched might be conveniently applied. The labelled plantations of living trees and the cabinets would still find an appropriate place, and in the studies above enumerated, to the extent that they are taught, the applications to forestry might, with equal advantage, be made practically familiar from fresh specimens in the classroom and by occasional excursions in the groves. There is no more profitable mode for cultivating a habit of observation than by requiring the student to discover and describe the differences that exist between objects that have a general resemblance but which are still unlike. For example, if branches from two species of the maple or the birch, the oak or the walnut, were assigned as a study, the mental effort involved in the exercise would lead the close observer to notice differences in the leaves, the buds, the bark, and the wood that he had never recognized before, however familiar these objects may have been, and the habit of close observation thus called into exercise may prove of infinite service through after life. The formation of private collections in forest botany and forest products might often be encouraged among the students of our academies to great advantage, requiring them at the same time to learn by their own inquiry and research, from whatever source of information they can devise, as much as may be concerning their properties, their value, and their uses. A relish for rural adornment can be in no way so effectually inspired as by example, and if some leisure hours are spent in planting and cultivating trees the knowledge may prove of great service in after life.

From the academies we pass to our public schools, where the extent of instruction must be modified to suit the more elementary course of studies that are taught. In the great cities the opportunities are few, and perhaps little can be done beyond familiarizing the scholar with the subject by cabinet specimens, engraved illustrations, and such instruction as may be incidentally given in the text books used; but in the rural districts the earnest and faithful teacher has abundant opportunities for inspiring a love of nature and of natural scenery, and there should be no school-house without its little plantation around it, which the inmates are taught to cherish and protect. The pupils may be encouraged to undertake the cultivation of ornamental shrubs rather as a privilege than as an obligation, and many impressions alike pleasant and profitable may be planted in the scholar's mind, that, like seed in good soil, may perchance germinate and bear fruit in after years.

As an illustration of the means by which the common schools may be made the agency of imparting correct ideas upon an important subject in rural economy, I will mention the measures adopted in recent years by the French government for the protection of insectivorous birds through the agency of their schools. Wishing to learn how this was done, I applied, some time since, to M. Waddington, then minister of education, who sent with his reply a series of circulars and documents having reference to the subject before us. In his instructions to the prefects of departments, after noticing the injuries caused to agriculture by noxious insects, which have increased to a truly alarming extent in recent years, he says:

> The ministers of agriculture and of the interior have called my attention to these sad conditions, of which the principal cause is the disappearace or at least great reduction in the number of insectivorous birds. These birds are the natural guardians of our harvests and the most precious auxiliaries of the farmer; yet they are everywhere

treated as enemies. The cultivator, forgetting the constant services that they render him, sees only the little faults they commit; children pursue them to destruction; they are caught in nets; their nests are broken up; and these useful friends which strangers come to buy for acclimation in foreign lands are gradually disappearing from our fields. Various circulars already have been addressed to the inspectors of academies and numerous notes inserted in the official bulletins of the ministry with a view to stopping this destruction. Notwithstanding this, I deem it my duty to respond to the wishes of my colleagues by calling anew upon the teachers for their concurrence.

I therefore desire you, M. le Préfet, to address instructions to all the teachers of your department, that they take pains to teach their pupils how to distinguish the insects that are injurious from those that are useful to agriculture; and that they encourage them to destroy the former and protect the latter. It is also of first importance that children should be made to understand that it is to the interest of their families that they destroy no birds' nests, and that in doing so they show themselves both reckless and ungrateful. They should also know the penalties of law that they incur by so doing. [The statutes and ordinances forbidding this practice are here cited.]

Teachers should also remind parents of the responsibilities incurred by allowing their children to destroy birds' nests, and that they are themselves liable to a fine for the acts of their minor children in allowing them to commit this act. I will add that in some communes that could be named teachers have conceived the happy thought of organizing among their pupils little societies for the protection of useful animals. These have done good service, and it would give me great pleasure to see their number increased. I attach, sir, the most serious importance to the execution of this circular, the receipt of which you are requested to acknowledge.

Among the other circulars were lists of birds and animals most useful to the farm and garden; statements of prosecutions under the game laws that had been carried to full punishment; examples of the benefits from the abundance of birds and of injuries from their scarcity, and pathetic stories to be read by the children that might well tend to enlist their sympathies in behalf of these feathered allies of the field. The following may be taken as an example of the class of stories thus brought under their notice:

A sportsman was returning from an unsuccessful tramp, when a little bird accidentally crossed his path. With scarce a motive, for it was not a game bird, he discharged his gun, wounding the little creature, which fluttered slowly away. Curiosity led him to follow the trail till it led to the nest where the mother bird was found in a dying condition, and trying to protect its young that were covered with its blood. The thoughtless cruelty of his act so impressed the hunter that he resolved from that moment that he would never kill another bird.

It may be thought that I am wandering from my subject in passing from trees to birds. But really, can we speak of rural scenery and sylvan life without associating them together? In fact, this very subject of the protection of insectivorous birds for the benefit of agriculture presents a strong argument in favor of planting groves and belts of timber between our fields to afford a nesting place and a shelter for them; and the measure we have seen introduced in France from motives of public economy deserves attention in our own rural districts as much as in any other part of the world.

In speaking of what might be done in favor of rural adornment, and *incidentally* of planting, through the instruction of our schools, it will at once occur to us that our teachers should themselves be taught; and hence we come to another phase of education that concerns our normal schools. We cannot here expect to do more than impart some general ideas on the subject; but there should at least be provided half a dozen lectures before each graduating class, and something, if no more than a single lecture, should be given at our annual teachers' institutes upon this most important subject.

In conclusion, we would remark that in this question of forest supplies and the incidental benefits of woodlands, now beginning to excite attention, we start with the disadvantage of having to encounter the prejudices of those who have been accustomed to look upon our woodlands, if not too abundant, at least as infinite in amount and in duration. We must undeceive the overconfident, convince the doubtful, and awaken an interest in the indifferent.

If we may borrow from the experience of our clergy, who generally find old sinners hard subjects for conversion, our greatest hope depends upon the impressions that may be made upon the young. This class we find in our schools, and we have the best of opportunities for inspiring in them a love of the beautiful, as well as of the useful, in the life that is opening before them. Although this association of the pleasant and the profitable should be a leading object in every phase of education, we may give prominence to the former without injury to the latter, and feel assured that, when a fondness for any study or pursuit is once established under pleasant and attractive associations, the uses will be discovered, although they may not have been directly pointed out.

If we can induce the young man to plant a grove of trees for the charming contrast of light and shade that it will afford when grown, he will in due time discover, without being told by us, the market value of the timber in the trees that cast these shadows. The planter of a woodland of oaks and pines may enjoy their growth through a lifetime, and his children after him, until they become grand and majestic, yet this will not prevent us from figuring on their value for staves and shingles when they come to maturity and should give place to a new growth. 'Tis true the love of gain is low and sordid as compared with the more refined and honorable motives of life, and we should appeal to this only when the one you would influence will listen to no other. If by means of the latter we can secure the enjoyment that they afford, and at the same time assure the advantages of the former, we shall have reached the highest point to which our education can attain.

Mr. NORTHROP, of Connecticut, spoke of the recent formation of the Association of Middlesex Falls, in Eastern Massachusetts, to lay out one of the finest parks in America. One object of this association would be to organize a school of forestry. He concluded by saying that until schools of forestry were established the principal substitute should be *the teaching in the* public schools, and that the minds of the scholars should be imbued with a love of rural improvement, and that the planting of trees should be encouraged.

Mr. DEWOLF, of Ohio, made some remarks upon the question of the morning, How can the status of the teacher be changed? We are taught, he said, to look to the ministerial or clerical professions for certain classes of work, and these professions are expected to lead us. It seemed to him that those in his profession needed to understand that they had relations to society, and that just in proportion as they felt this they would have the same power that other professions possess.

Mr. NORTHROP stated that there were in Connecticut sixty associations for rural improvement, and that he had aided in forming as many more in other States, and in every case he thought the result had shown the wisdom of the organization.

Mr. DEWOLF followed with some remarks on tree planting.

On motion of General Eaton, the department then adjourned to meet in the same hall at 10.30 the next morning, instead of 9.30, that the members might have an opportunity to visit the Normal College.

A complimentary dinner was tendered the department this (Wednesday) evening at Delmonico's.

Hon. William Dowd presided, and short addresses were made by General Eaton, General Webb, Neil Gilmour, J. P. Wickersham, Aaron Gove, M. A. Newell, D. F. DeWolf, Dexter A. Hawkins, John D. Philbrick, Mr. Page, J. H. Smart, Hosea Perkins, and Professor Scott.

FOURTH SESSION—THURSDAY MORNING.

NEW YORK, *February* 10, 1881.

The department having met, the members listened to some remarks by Mrs. MARY H. HUNT, of the Woman's National Christian Temperance Union, who spoke of the evils of intemperance and the importance of training the children in the schools to habits of temperance, from the standpoint of physiology and chemistry.

General EATON then read the following paper:

MUSEUMS ILLUSTRATIVE OF EDUCATION.

This paper is entitled "Museums illustrative of education," by which expression I mean to indicate collections of articles, apparatus, and objects which may illustrate or symbolize the means and methods and processes of human instruction.

The establishment of such collections involves the question of their expense as well as the question of their relation to the principles of pedagogics. The first question naturally will be decided by the value of these museums as ascertained in the consideration of the second.

All theories of education agree in emphasizing the importance of the senses in the cultivation of the intellect. The conditions of infantile life are mainly physical, and show few signs of the mental power of the adult. The first years of the child are a waking up to its own wants and to the influences which bear in upon it through the avenues of the senses. The mother still stands to it as its next self, supplying its wants, protection, nourishment, and affection, and directly shaping those conditions of the environment which affect or direct development. The mother is first to repress the cry or to awake the smile, yet all parental agencies speedily find their limit, and others must be admitted, but the principles of growth remain the same. The scope of material conditions increases; society, other than parental or family, appears, and the teacher is brought into requisition. His success will be determined by his skill in commanding the attention of his pupil. As a rule, he will find social economies placing him and his pupil or pupils during the hours of instruction apart from the influences of the family and society and the means and opportunities of observation. Aside from himself and his own attainments, the chief instrumentality at his command is the book.

The schools as thus constituted to-day, of teachers, pupils, and books, with all their conditions, have not come by chance, but are a growth, the marks of which can be distinctly seen if we attempt a comparison of them with the schools of a quarter century, a century, or two centuries ago. Take the subject of text books. The homely little horn-book of the old days has expanded and multiplied itself into numerous and various spellers, readers, arithmetics, geographies, and other text books.

The legs of the little pupils do not so often dangle from their seats. The lighting, heating, ventilating of the room, indeed the conditions of the school generally, are more healthful. Something to aid illustration, such as blackboards or charts, adorns the walls. The dunce block is absent, the ferule less common, and the relation between the teacher and pupil is less that of distance or of physical force on one hand and fear and unnatural restraint on the other, but it has become a nearer approach to the relation between the worthy parent and the worthy child.

And yet these advancements of the school on previous decades and centuries are not quite satisfactory. The teacher with genuine power to instruct and train will find a thousand ways to introduce devices, imagery, motives, by which the pupil's attention will be increased, his conceptions made more clear, and the result more nearly satisfactory to the philosophical view. To the close observer these improvements suggest a purpose to discover and realize, if possible, the relation in which the child is first found to parent and surroundings.

In the history of races and of human culture antedating the use of letters, we have the growth of oral traditions. But here and there a man arises with the histrionic power. He can represent and imitate others, and he meets at once a response from those who hear or witness his exhibition. Another is so constituted as to have power on the side of conscience in moralizing, and finds a corresponding response from the consciences of those around him. Still another has the power of rhythm, and weaves into poetic language and imagery the experiences, the heroic acts of others, or the striking traditions or the solemn precepts of the moralist, and finds perhaps a chorus of voices responding to his measure.

At another point, historically, we find that a great mind, through its various avenues of information and reflection, has advanced its accumulations far beyond its contemporaries, and the possessor of this mind becomes a teacher. If it be Socrates, his pupil is any one who will converse with him; his place of instruction, the wayside, shop, or garden; and the illustrations and the imagery used are drawn from familiar objects and experiences. If it be Plato, he walks with his pupils in the groves of Academe and discourses upon the profoundest subjects of philosophy. If Aristotle, he adds to philosophical discourse, and leads to heroism by reading to Alexander the pages of Homer. If it be Jesus, the Saviour of men, He goes about doing good; His disciples follow Him; He teaches the greatest doctrines of life, drawing His illustrations and imagery from the objects about them and the experiences of their common life.

But with the introduction of letters the increasing record of facts, the advance of knowledge, and the development of science made it both possible and necessary for the learner and the teacher that selections should be made of the subjects to be taught and that the mass of the facts brought into view should be reduced and rendered available for the period of school days.

We need not stop to inquire how religious motives in all great movements have proved supreme.

It is sufficient to note that in the middle ages, when the education which we now have began to take form, the methods of instruction, controlled by the supreme ecclesiastical power, were shaped to the acquisition of knowledge from the book only, and were necessarily of the most abstract character.

We are all aware how little was then known in all departments of natural history or natural sciences. We cannot pause to consider the agitation produced by the researches which have advanced these departments of knowledge. The theory that ecclesiastical ideas then held and formulated were infallible and admitted of no change encountered antagonisms on the part of all who sought to improve the methods of instruction or to enter new fields of learning.

The absurdities and barbarisms of the schoolmasters of three or five centuries ago we pass over. It is our misfortune as educators that we are still largely under the dominion of these abstract methods, though the greatest evils have been encountered not in the application of these abstract methods to adult minds or to minds after they have reached the period of reflection and reason in which the processes of abstraction become natural; the chief misfortune lies in their application to the period of youth, when the senses perform so large a part in all mental operations.

We are told, as you know, that the brain is often not matured till the child is ten years old. The teacher must take him as he is. He must expect him while a child to act as a child, to learn as a child, to speak as a child.

These difficulties are specially intensified in all efforts to instruct those who are unfortunate either in the loss of sight or hearing or deficient in mental powers—unfortunates whom no one attempted to teach in ancient times and who have only within a very recent period, under the advanced ideas of christian philanthropy and the progress of modern science, been touched by the semi-creative power of education in schools. These teachers have found it possible to succeed only by meeting the issues which I here bring to the attention of educators in general. They have first studied the child and marked the signs of incipient development. They have analyzed the subjects of instruction and the methods in general use, and found how these could be modified to meet and answer the conditions of their pupils. Their triumph is a marvel, and we hold that the teacher of the normal child, normally developed, may improve his methods by a similar process; and in affirming this we do not admit that the book is useless, that our schools are failures, that our teachers are all ignoramuses, that we are all on the wrong track now.

While we do not deny that we may learn from every civilized nation, we believe and affirm that we have teachers, that we have methods, that we have school-houses and appliances and institutions of all grades (except the very highest), that we have systems of education nowhere excelled, and that on the whole our education, as imperfect as it now is, is producing a society better fitted to live a better life on a larger scale and with better results than are found anywhere in the history of the past or under any other form of education.

We are among those who believe in American institutions and that they embody more good for a great people than any other. We are not so blind as to think we have all that is best. We would learn from all others and draw to ourselves by suggestion and appropriation every benefit they can confer. A moment's consideration will bring to mind the line in which to apply to our education the correctives which we are considering. Prof. Joseph Henry was accustomed to express his idea that our education needed a corrective by saying that we should, in the order of instruction, consult the order of the child's development. We must study the child as he is, physically, mentally, morally, in his material and spiritual conditions and surroundings, and seek to comprehend his destiny. As we have seen, those who deal successfully with the development of defective youth come into the most intimate relations to their actual conditions, and by their nice adaptation of methods *bridge over blindness* or deafness or imbecility, and reach, nouris train, and secure growth. Dr. Howe found there was one and only one available medium to the mental powers of Laura Bridgman, the sense of touch or feeling, and we have the marvellous result: Laura is introduced to the world of knowledge common to others. Applying the same principle in the education of those who are sound, who are without any special defect, we should devise methods adapted to the best development of the entire capacity of the child. In not doing this we commit our greatest blunders. In correcting these blunders we must guard against the tendency to fall into greater evils. The so-called object teaching has been offered as a panacea, yet we often visit a school where these object methods are employed and find the development of the child quite as partial and defective as under the old methods. The evidence is positive against any exclusive method. Professor Bain observes:

> Young and old alike on seeing a good picture are apt to rest there. Such is the tendency of all representations, sketches, maps, and the rest. The most valuable helps to geography are models, and if these could be multiplied in schools the conceptions of the general forms of countries would be vastly enhanced; while the subsequent lessons of juxtaposition and relative situation would find a groundwork of remarkable cohesiveness.

What we want in our instruction and training, we repeat, is to use in due proportion all the child's capacities for his harmonious development; not to use solely his perception, or reflection, or expression, or memory, or imagination, or reason. At best there will be much in every child which the teacher cannot comprehend, and with forty or fifty pupils to the teacher there is need that all helps should be in his hand. In these perfected schemes the book will ever hold the preëminent place. Indeed, the child who acquires a taste for reading the book and skill in handling it has the clew to all learning, whether he have a teacher or school or not.

But while the wisest endeavors are used to make the book most effective, it can impart only second hand information. It is equally as important that the pupil should be taught how to acquire also knowledge at first hand: to bring his own eyes, his own ears, experiences, observations, to the service of his mind. And yet his memory must be trained alike in its recollective and retentive capacity; he must know how to reason, too, on what he experiences or observes or reads. His imagination must be stimulated and enriched by the power and beauty of fable, parable, poem, song.

Both Socrates and the Great Teacher of Men employed with the greatest skill the power of imagery to reach the heart and direct the conduct through the imagination.

Instead of doing this whole work for the child, which is here urged, we find that one teacher is strong in operating on the sensibilities, another in forcing obedience upon the will, another in arousing conscience, another in quickening the reasoning faculties, another in cultivating the memory, another in inciting reflection, another in developing expression, another the taste, another the perceptions dependent upon the senses. What we want and are urging is that an education shall comprehend all these.

A grand defect lies not with the purpose and desire of the teacher, but in the lack of possibilities. The teacher in Siam cannot travel with his royal pupil to Siberia to convey to him a correct idea of snow and ice. He must do it through words and imagery. If we cannot have the thing, we must have the most pertinent illustration or image of it. Since we cannot go everywhere for these observations, we must gather and concentrate their illustrations. The past cannot reënact itself for the student of history. As the book aids him in the study of centuries gone, so the museum must bring together specimens of the armor, implements, furniture, architecture, and arts of those historic ages beyond his observation, and arrange and group them in a manner adapted to his information. "Certain it is," as Bacon observes, "that into the deep, fruitful, and operative study of many sciences, especially natural philosophy and physic, books be not the only instrumentals; wherein also the beneficence of men hath not been altogether wanting; for we see spheres, globes, astrolobes, maps, and the like have been provided as appurtenances to astronomy and cosmography as well as books; we see likewise that some places instituted for physic have annexed the commodity of gardens for simples of all sorts, and do likewise command the use of dead bodies for anatomies."

The idea is as old as the Temple of the Muses. We have all read of the museum at Alexandria, established by Ptolemy 284 years before Christ, and of thatone founded by the Roman Emperor Claudius. Then we get glimpses of those at Pergamos, Antioch, and Byzantium. In modern civilization the idea has received great enlargement. Years ago Prof. Joseph Henry remarked:

> There is scarcely any subject connected with science and education to which more attention is given at the present day than that of collections of objects of nature and art, known under the general denomination of museums. This arises from their growing importance as aids to scientific investigation and instruction. As they are intended to subserve different ends, they are of different characters. There are, on the one hand, large central museums, supported by government appropriations, and on the other, local museums, which are established and sustained by societies and voluntary individual aid.

One of the most interesting forms which museums have assumed in our day is that wherein the collection of articles for the promotion of public information is combined with that very ancient commercial device, the fair. Many cities and countries have organized such exhibitions, notably the World's Fairs of 1851 and 1862 in London, the Universal Expositions of 1867 and 1878 in Paris, the Weltausstellung of 1873 in Vienna, and our Centennial of 1876 at Philadelphia. Each exhibition of this kind has stimulated and inspired the people who beheld it and has left behind it a permanent museum of great value for the future *instruction of the public.*

Now, while the student of pedagogical theory and practice finds much in these exhibitions and museums which teaches him, it is only at exceptional times and in special places that he can have frequent access to material illustrating the progress, methods, and conditions of his art. Impressed with the fact and bearing of this deficiency, educators have from time to time endeavored to organize collections illustrative of the subjects and methods of instruction.

Comenius, among other valuable works, prepared his orbis pictus. He would have the word learned in connection with the thing; thus, in the study of science the scholar must, as far as possible, have the objects themselves before him, and, when this cannot be done, correct drawings or pictures of them. He would have the true order of instruction learned from nature, and emphasizes the employment of the senses.

Later there came Pestalozzi, reviving the same propositions in a modified form: first, he would teach the thing and the word together; second, he considers that the only effective agents through which to acquire the knowledge of things are the senses, chief of which is that of sight; third, the child should study the objects immediately around him; fourth, from this starting point the sphere of knowledge must be extended by the gradual enlargement of observations.

Then came Fröbel, seeking to perfect what these eminent men had already attempted in the application of nature's method in the education of the child.

It should be recollected that during the progress of these changes in theory and practice the subjects of instruction were multiplied. Botany, mineralogy, zoölogy, chemistry, physics, and astronomy made great advances. Each engaged the attention of master minds. Experiments and illustrations in the presence of the pupil increased, and by degrees he was encouraged to attempt manipulation for himself. Under the old classical curriculum the library was the chief aid required in instruction, but now cabinets of minerals and of botany were introduced, and in time collections of specimens illustrative of all the physical sciences.

Dr. De Cuyper, a distinguished professor at the University of Liége, says, in his report on polytechnic and higher industrial schools in Germany, that the success of these schools is to be ascribed to the educational auxiliaries which the student finds in the varied and complete collections connected with the schools. These collections educate both the professor and the student. The famous Royal Industrial School at Berlin (Dr. Reuleaux's) has at present 16 distinct collections; the Mining Academy at Freiberg has 11; the Polytechnic School at Munich, 27; the Polytechnic School at Carlsruhe, 12; the Polytechnic School at Darmstadt, 15; and the Polytechnic School at Brunswick, 14.

In 1877 the Saxon ministry of public instruction thought it of sufficient importance to issue a special circular calling attention to the excellent papier mâché and other models prepared for the use of schools by the Museum Salvator at Dresden.

The increased use of illustrations in science and physics affected the methods of teaching the classics and mathematics. The professor of Greek and Latin now adorns his room with maps, plane and raised, of the localities mentioned in the text, with typical representations of architecture, and with the busts of the celebrated persons mentioned. The change is no less in the methods of teaching mathematics. Says Herschel:

> Number we cannot help regarding as an abstraction, and consequently its general properties or its axioms to be of necessity inductively concluded from the consideration of particular cases. And surely this is the way in which children do acquire their knowledge of number, and in which they learn its axioms. The apples and the marbles are put in requisition, and through the multitude of gingerbread nuts their ideas acquire clearness, precision, and generality.

Says Mr. John Stuart Mill:

> The fundamental truths of the science of number all rest upon the evidence of sense; they are proved by showing to our eyes and to our fingers that any given number of objects, ten balls, for example, may by separation and rearrangement exhibit all the different sets of numbers the sum of which is equal to ten. All the improved methods of teaching arithmetic to children proceed upon a knowledge of this fact. All who wish to carry the child's mind along with them in learning arithmetic — all who (as Dr. Biber in his remarkable letters on education expresses it) wish to teach numbers and not mere ciphers — now teach it through the evidence of the senses, in the manner we have described.

Mr. Spencer observes, quoting Mr. Wyse:

> A child has been in the habit of using cubes for arithmetic; let him use them also for the elements of geometry. I would begin with solids, the reverse of the usual plan. It saves all the difficulty of absurd definitions and bad explanations on points, lines, and surfaces, which are nothing but abstractions.

Huxley says:

> But if scientific training is to yield its most eminent results, it must, I repeat, be made practical. That is to say, in explaining to a child the general phenomena of nature, you must, as far as possible, give reality to your teaching by object lessons; in teaching him botany, he must handle the plants and dissect the flowers for himself; in teaching him physics and chemistry, you must not be solicitous to fill him with information, but you must be careful that what he learns he knows of his own knowledge. Don't be satisfied with telling him that a magnet attracts iron. Let him see that it does; let him feel the pull of the one upon the other for himself. And, especially, tell him that it is his duty to doubt until he is compelled, by the absolute authority of nature, to believe that which is written in books. Pursue this discipline carefully and conscientiously, and you may make sure that, however scanty may be the measure of information which you have poured into the boy's mind, you have created an intellectual habit of priceless value in practical life.

Combe remarked in general:

> The true plan is to present the object to the children. Let them examine its form, size, color, and other particulars, and afterwards tell the name, and spell it. All nature is adapted in the most beautiful manner to the faculties, and the study of nature imparts great pleasure. Thus the curiosity of children to know things is insatiable. You are aware that they will break their playthings to see what is within. When properly taught, the elements of all the sciences are simple. Talk to a child of geometry, triangles, and hexagons, and you will puzzle it completely. But present a figure, let it notice that it has three sides and three corners, then tell it that all such

figures are triangles, and it readily understands the matter. So of the other geometrical figures. Children always take pleasure in learning by actual presentation. They can be instructed in almost anything which can be presented to them directly and subjected to their senses.

Herbert Spencer affirms also as a general principle:

> The rudimentary facts of exact science are now being learnt by direct intuition, as textures and tastes and colors are learnt. Employing the ball frame for first lessons in arithmetic exemplifies this. It is well illustrated, too, in Professor De Morgan's mode of explaining the decimal notation. M. Marcel, rightly repudiating the old system of tables, teaches weights and measures by referring to the actual yard and foot, pound and ounce, gallon and quart, and lets the discovery of their relationships be experimental. The use of geographical models and models of the regular bodies, &c., as introductory to geography and geometry respectively, are facts of the same class. Manifestly a common trait of these methods is that they carry each child's mind through a process like that which the mind of humanity at large has gone through. The truths of number, of form, of relationship in position, were all originally drawn from objects; and to present the truths to the child in the concrete is to learn them as the race learned them. By and by, perhaps, it will be seen that he cannot possibly learn them in any other way; for that if he is made to repeat them as abstractions, the abstractions can have no meaning for him, until he finds that they are simply statements of what he intuitively discerns.

If, after considering the opinions of such eminent authorities, there be any who deny that the changes here urged are improvements, it will be in vain to present to their attention further arguments. Educators generally have accepted or are accepting these principles, but from what has already been said it is evident that when they speak of the museum illustrative of education they mean something quite different from the cabinet or apparatus by which the teacher of science or mathematics points his lesson. The several subjects of instruction will indeed find here their appropriate illustration; but, passing beyond these, such museums will contain all material which can, to the eye of the teacher, the parent, and the administrator, convey information respecting the relations of education to man, to industry, to art, to science, yes, to civilization. Such a collection will be to normal training what a natural history museum is to instruction in science, what an herbarium is to botany. Here the teacher, the superintendent, the school-house builder, the maker of school furniture, the sanitarian, the sociologist, should find material for thought and information.

Statesmen and students of history here find in the use or neglect of these methods the secrets of the greater or less progress of nations.

The protest against abstract methods in the training of early childhood and the effort to make more complete aids and illustrations have made rapid strides within the last fifty years. Already we have information of sixteen museums in Europe specially illustrative of education. These are located at Vienna, Buda-Pesth, St. Petersburg, Amsterdam, Rotterdam, Brussels, Paris, Berlin, Rome, Palermo, London, Munich, Dresden, Zürich, Moscow, and Berne.

The pedagogic museum holds the relation to the general museum that *the pedagogical* library holds to the general library. The general library attempts to make a collection of books exhaustive of its kind, and the general museum attempts to make a general collection of articles exhaustive of its kind and illustrative of its subject.

What Mr. Perkins, that eminent friend of art, has said of collections in his department, viz, that "we aim at collecting material for the education of the nation in art, not in making collections of art," educators may say with reference to museums illustrative of education. We do not seek to make collections of objects of curiosity merely. We seek to make collections which will be illustrative of the condition, progress, and improvement in education, whether these relate to systems, or institutions, or methods, or subjects, or appliances.

All who have studied the development of education in Ontario under the eminent Dr. Ryerson have been impressed with the aid his improvements received from the educational museum he so early established.

The Japanese government, after sending commissioners to see the best systems, institutions, and methods, and calling to their aid experts, administrators, and teachers from all parts of the world, expended large sums of money in collecting the material for a museum illustrative of education.

Few governments are more thoroughly convinced of the necessity of educational museums than the government of the French Republic. There may have been differences of opinion among the great men who have been at the head of the ministry of public instruction since 1870—Messrs. Jules Simon, Waddington, Bardoux, and Jules Ferry—but on this point they are not divided.

In 1878, when France had no educational museum, the government appropriated 100,000 francs in order to enable the teachers to visit the Paris Exposition, the museum par excellence. M. Bardoux, minister of public instruction, in addressing the 12,000 teachers who had come to Paris, said, among other things:

> You cannot be good teachers unless you are continually learning yourselves, and you cannot instruct children successfully unless you study every day the progress of the art of teaching. You must acquaint yourselves with new methods of teaching and with the latest improvements in school apparatus. We (the government) intend to establish educational libraries all over the country, and we shall endeavor to give you permanent cantonal museums.

Pedagogical aids advance most rapidly in the form of libraries. According to the report dated in 1880, 929 of these libraries were established in France. According to recent information they have increased to 1,725. Some departments have one and others as many as sixty-three.

Jules Ferry, minister of public instruction, published a suggestive list of books from which selections could be made by those organizing these libraries. First, are works relating to general pedagogics, such as those of Rollin, Madame Necker, Rousseau, Guizot, Locke, Herbert Spencer, and Jules *Simon;* second, works on practical pedagogics, those by de

Gérando, Girard, Madame Pape-Carpentier, Levasseur, and Legouvé; third, books of reference, such as the works of Joly, Cuvier, Hippeau, Buisson, and Gréard; fourth, works on the history of education at home and abroad, foreign and domestic school legislation and reports.

The minister adds:

> It is not the number of books, but their value, which makes a pedagogic library.

The question of establishing museums illustrative of education has long interested American teachers and officials. They have closely watched the progress of this idea elsewhere and have considered its application at home. Their opinions, as expressed in a large number of letters recently received at the Bureau of Education, are strongly in favor of establishing such a museum in connection with the educational library already collected, in order that the first source of information for the student of pedagogics, namely, the literature of the subject, may be adequately supplemented by the second, to wit, its illustration.

They believe that there should be one place in the country where the American educator or teacher may study all that is known touching any given phase of education. They also believe that the nation can and should do this, which States and cities, however powerful, cannot do as well, and which private institutions, for obvious reasons, cannot hope to accomplish at all.

A small appropriation has been made by Congress for cataloguing, caring for, and increasing this collection, and the Bureau desires the best suggestions from every quarter in order to make its use most effective for the improvement of education throughout the country, as contemplated in these brief statements and hints.

A telegram was received and read from Superintendent Andrew J. Rickoff, of Cleveland, Ohio, announcing his inability to be present on account of illness.

It was then voted that Hon. J. W. Patterson should deliver his address in the afternoon instead of the evening, as announced.

Mrs. WALWORTH, school commissioner of Saratoga Springs, N. Y., asked whether something could not be done to teach the elementary principles of honesty and morality in the public schools.

Mr. GOVE, of Colorado, said that there was no city in the country where the teacher was not required to present testimony of a moral character and upright life, and that the influence of the teacher was better than text books or formulas of morality.

Mr. DEWOLF, of Ohio, urged that the committing to memory of the gems of literature was a most efficient means of teaching morality, and said that much could be done by the teachers towards answering these questions by living good and godly lives themselves.

Mr. MURPHY, of New York, thought that some teachers were not of high moral character, and cited the case of a teacher in Troy who sent her pupils out to buy beer.

Mr. NORTHROP, of Connecticut, said that what this gentleman had said he believed to be exceptional; he thought the great majority of the teachers in the public schools were christian teachers, who were seeking to illustrate by their lives the principles of morality and virtue.

Mr. SANFORD, of Middletown, N. Y., rose to advocate the morality of the teachers of his State, and was followed by Mr. Barringer, of Newark, N. J.

Hon. J. W. PATTERSON, observing that General Eaton had called attention to the fact that education has two sides, objective and subjective, said that the child at home begins his instruction in the objective method, which is the natural method of teaching. The perceptive faculties are developed first; afterwards the child begins to reflect. Object teaching is as old as the world. He asked if there was not danger that the other side of education, the development of the power of thought, might be forgotten.

Mr. SMART, of Indiana, recurring to the point introduced by Mrs. Walworth, wished to enter a protest against the assumption that the schoolmaster is responsible for everything. He denied that he had such responsibility. He thought that children are not cared for at home as they should be. Still, teachers do not do as well as they can. The best kind of work and the best instruction in morals are going on in schools every hour of the day. In his judgment the power of self control is one of the greatest moral forces, and the schools were teaching this very thing.

Mr. SLADE, of Illinois, thought it was the influence exerted by the teacher that would tell, not what is in books; that if the pupils were to be made what they should be there must be character in the teachers. The public schools are the grand leveller, not by dragging any down, but by bringing up the lowly and the humble.

Mrs. WALWORTH explained that she did not bring any charges against teachers, as they were generally well meaning and intelligent, but she thought many teachers in the northern part of New York had little knowledge and might receive instruction on this point.

Dr. PHILBRICK, of Massachusetts, referred to the paper which had been read as in no way one-sided, but an exact statement of facts. No substantial progress could be made, except in the solid study of education or pedagogics. One important thing is to have pedagogical libraries; another, to have a great pedagogical museum at Washington.

General EATON moved that a committee of five on resolutions be appointed. Adopted. He then expressed regret that Dr. Elisha Harris, of Albany, N. Y., who was to read a paper on "Education and health," could not be present.

Remarks were then made by Mr. Carleton, Mrs. Hunt, Dr. Philbrick, and General Eaton, and the department then adjourned, to meet at 3 P. M.

FIFTH SESSION—THURSDAY AFTERNOON.

New York, *February* 10, 1881.

Mr. Marble announced the committee on resolutions as follows: J. O. Wilson, District of Columbia; H. S. Jones, Pennsylvania; Charles Northend, Connecticut; Aaron Gove, Colorado; and E. A. Apgar, New Jersey.

Hon. J. W. Patterson, State superintendent of public instruction in New Hampshire, read the following paper:

NATIONAL AID TO EDUCATION.

The old masters of the world arrogantly assumed that every Roman citizen was born a ruler; and hence the vainest as well as the greatest of Roman orators said, "Any one can make himself a jurisconsult in a week, but an orator is the production of a lifetime." Aristotle, more thoughtful and observant of the causes and drift of human affairs, said, "All who have meditated on the art of governing mankind have been convinced that the fate of empires depends on the education of children." The political philosophy of the great Athenian voices the experience of all the ages since his day. It would be easy to fill the time allotted to me with utterances of similar import from publicists and practical statesmen of every period and phase of civil progress.

The conservative forces of government are moral, not physical. It is the intent and spirit of the people which give validity and inviolability to law. Without this it is soulless and impotent. Statutes cannot bring order and prosperity to a state whose citizens are not a law unto themselves. A people who have not an intelligent appreciation of liberty, and do not see the line beyond which it passes into license, will perpetually chafe and rebel against its necessary limitations. They are not safe guardians of civil freedom, if they do not apprehend its nature and the institutions by which it is reduced to a system of practical government. Individuals who, like children and madmen, have not the capacity or disposition to govern themselves in a way to subserve their own or the public interest, cannot claim the right of self government. Equally, a state in which a large majority of the people do not comprehend the nature and genius of free institutions cannot assert the right of popular government, and has no cause to complain of the restraints of a higher power that would suppress the violence or fraud that tends to the overthrow of law and liberty. Should the intelligence of the electorate of any State of our Union decline so low as to render self rule a farce or a peril, unquestionably that article of the Constitution of the General Government which guarantees a republican form to every State comes into action and is paramount to all State authority. The guarantee carries with it an implied power to guard against such a contingency, not necessarily by force, but by demanding or providing in each State the means of popular education. It is idle longer to talk of this as an exclusively local or State question. It involves the welfare and life of the Union, and is therefore a national question. It is true, "the national charter," as Judge Tourgee has said, "is dumb in regard to it;" but it is potentially in it. The conception is as old as the convention of 1787, and destined soon to come to its birth in some living form. As the great war powers slumbered in the Constitution till wakened into activity by the necessities of the Government, so this will be seen to be a legitimate offspring of fundamental law when the instinct of self preservation shall demand it. The Republic carries with it, written or implied, the right to perpetuate itself; and national education being essential to that end, its maintenance will be found necessary to transmute the blind, brutal instincts of ignorant masses into intelligent forces of strength and prosperity. We have not yet realized the full measure of disaster possible to a free state based upon popular ignorance, but the drama is on the stage and may yet become a tragedy of blood.

I will not repeat statistics familiar to the public mind, but must recall for your reflection the painful fact that 45 per cent. of illiteracy in sixteen States of the Union has not only placed all political power, in that section of the country, in the hands of a majority of the remaining 55 per cent. of voters, but, not to mention its weight in the electoral college, has given to one-twelfth of the voting force of the Republic 72 per cent. of power in the lower and 84 per cent. in the upper branch of Congress. The illiterate balance of power, incapable of understanding or too weak to defend their rights, may be excluded or defrauded at the polls, the constitutional guarantee of State republics defied, and the vast interests of the country subjected to a usurped power of legislation.

But history suggests to our apprehension yet graver perils. This blended mass of humanity, which to-day may be the convenient instrument of personal avarice or ambition, awakened in the bitter conflicts of party to a consciousness of its strength, held by no moral restraints, and maddened by some real or fancied social wrong, may at length sweep down, with the resistless power of elemental forces, in the States so cursed, all the forms and landmarks of an inherited liberty, or, like a Parisian mob, stain its altars with the blood of the purest and ablest of the land. Should such an emergency come to us, as it has to other republics, nothing but national power could arrest the desolation; and the Executive, in the discharge of his duty, would be forced to intervene to rescue society from destruction. When we reflect that such possibilities may become an accomplished fact, shall our activity in the cause of popular education be paralyzed by the timid assertion that the work is not national, but one left to the care of the several States? What if the States refuse or neglect to care for this common interest; shall the nation slumber over the restless volcano till it is too late to save our *interests, our honor*, or our liberties? A people upon whom the respon sibilities of the ballot have been cast have a right to demand of the government which conferred it a degree of intellectual training which shall enable them safely to discharge its functions. But we are told we cannot afford to thus secure the future at the cost of sacrificing the fundamental principle of the local distribution of power. Here we are met again by the ever recurring, never ending dogma of State sovereignty, which, without the discrimination of the ghost of Banquo, stalks obtrusively into every subject, seemingly unconscious that it is a ghost. State rights are sacred and impregnable barriers to the usurpations of central power, but are impotent and untimely obstructions in the path of national safety. Will not all State rights perish in the doom that awaits the universal decline of popular intelligence? But will some advocate of local sovereignty tell us how a national supervision of this great department of the common welfare is to imperil State rights more than the regulation of commerce and currency? The exercise of concurrent educational powers in the States is no more dangerous to personal or State rights than the discharge of concurrent judicial functions or the exercise of a concurrent power of taxation. The objection is the spectre of a disordered fancy, and has no real existence. But if it were true, it would be no loss to exchange a paralyzed State function for a national one that would breathe vitality through the whole organism of society. Of what value are rights to a State, if its population cannot discriminate or comprehend them, and have not the ability or spirit to defend them? Abstract political powers are a utopian dream without the intelligence to recognize and embody them in practical laws and institutions. Political power is a dangerous weapon in the hands of a people who have not the wealth, the arts, the utilities, the industries, the altars, and the homes that spring from the schools. Not simply our foreign influence and Federal unity, but the domestic prosperity and security of the States must fall with the decline of local intelligence.

The laws of trade and social economy, the inventive skill, the thrift and enterprise of business, the capacity for industrial production, and the accumulations of wealth, the growth of brain power, and moral stamina which bring influence and character to communities have their birth and nourishment in the schools. All these and the absolute security of States against the encroachments of Federal power will be found in a system of free universal education. The ingenuity and skill of the workshop, the sense and manliness of the farm, the scope and enterprise of commerce, the genius and heroism of arms, the wealth and pathos of literature — all industries and all professions droop and die in the eclipse of popular intelligence.

The question of congressional aid to education is fundamental, and has been forced into the arena of legislation against the wish of parties by vexed problems for which statecraft can find no other solution. The situation is abnormal and disgraceful, and demands the forecast of prudent statesmanship rather than the empiricism of politics. Experience teaches us that this great interest cannot longer be left to the exclusive care of the States.

The census of 1870 revealed the startling fact that more than one-fourth of our whole population above the age of ten years could neither read nor write and more than one-half the population of the late slave States above that age were illiterate. We do not allude to this in a spirit of crimination, but because it is an essential fact in the discussion. The advantage of the North, and especially of New England, in this regard has resulted from the circumstances of settlement and the character of their industries. This difference constitutes no legitimate ground of inaction. We of the North cannot innocently refuse to coöperate in an effort to remedy this great public peril because it is largely local, nor ought we to complain that the funds demanded for its removal, to be effective, will have to be distributed on the basis of illiteracy, and therefore unequally; for, while we may not derive as many advantages, we shall be benefited as essentially as the less favored section and in the only way in which the evil can be reached. We are one people. Our industrial and political interests are bound in a perpetual wedlock, and the whole family of States must rise or fall together. We cannot say one to the other, "I have no need of thee," but the members should have the same care one for another, and whether one member suffer, all the members suffer with it, or one member be honored, all the members rejoice with it.

There is an explicit grant of power in the third section of the fourth article of the Constitution, "to dispose of, and make all needful rules and regulations respecting, the territory or other property belonging to the United States." Basing its action upon this constitutional provision, Congress, in pursuance of a policy adopted anterior to the organic law, has, at successive periods since the administration of Washington, made grants of land for educational purposes, aggregating 95,737,714 acres. It has also made direct appropriations of money for this purpose, which amount to $47,785,197.93. In many of these cases Congress has made, in accordance with the letter of the Constitution, specific regulations for the expenditure of the sums appropriated.

In view of this record, covering the whole period of our history, it is too late to question the power of the General Government to appropriate public funds for educational purposes and to disburse the same directly by its own agents. Such appropriations on the basis of illiteracy are not liable to the charge of an unequal distribution of public funds; for they are not given as donations to States or citizens, but for "the common defence and general welfare." Like forts and lighthouses at ports of entry and military and naval schools, they are not local but general in their purpose and effects. But in what form this national aid can best be applied is a practical question, demanding the most careful consideration. The independent *right* of the General Government to educate *its people for the* proper discharge of their public functions is incident its very existence. But as intelligence is an antecedent condition of self government, it must be conceded that the right to educate its citizens belongs also to each State; that right, however, cannot *limit* the obligation to the States, for the citizens of the States are citizens of the United States, and therefore the General Government, whose powers are supreme within their range, is bound to secure to all the children of the Republic, directly or through the States, suitable and sufficient opportunities to prepare them to discharge intelligently and safely their political duties. The public welfare is the supreme law of every State, whether founded upon a written or unwritten constitution; but the attempt to supplant State schools by a national system, or to establish a binary system, would be a measure so radical and hazardous that it should only be resorted to as a last expedient against the dissolution of the Republic. On the other hand, the distribution to the States of national funds, to be disbursed by them without supervision or responsibility, would be a failure as a permanent educational policy. Revenues so received would be lost in the scuffle and antagonisms of politics, or, like the old "surplus revenue" of 1836, vanish into thin air through a thousand follies. Should this not happen it would be diverted into special channels by dominant State prejudices or be made to minister to the higher education, while popular ignorance, which it is designed to remove, would be left to increase.

Colleges and universities will spring as a natural growth from public intelligence, but common schools must be planted and fostered by the government. The most urgent demand of the Republic to-day, looking at its political and social necessities, is a system of free primary instruction that shall reach all classes, races, and sects, and be directed and inspired by a supervision at once intelligent and unflagging. Unfortunately, districts the most benighted and deplorable are the last to realize their situation, and others have not the means to better their condition. National aid should be applied to the localities and populations most in want, and by an impartial intelligence that will make no mistakes.

In matters of such moment Congress should be guided by the rules of business which hold between private parties. Let it be sure that the thing paid for will be received. Security is the law of business between honest men, and surely parties who ignore conscience and repudiate solemn obligations have no reason to complain if held to the same rule.

To devise a wise and practical plan of national aid and supervision of instruction should be the work of an intelligent commission familiar with the wants and conditions of all sections; and even this would have to be perfected by experience, like other permanent institutions.

I would not presume to foreshadow a system in matters so fundamental and organic; but we may venture to suggest that the plan adopted and so successfully administered in the distribution and application of the Peabody fund would be a safe and instructive precedent for statesmen in the disposition of national funds to the same cause. I am disposed to believe that, whether the proposed aid is to come from an invested fund or from annual appropriations, it should be paid directly to districts by educated and responsible agents appointed by the executive, and on such conditions as to improve and lengthen schools already existing and to secure the establishment of others in localities where they are needed. These school agents should act in harmony with local officials as far as possible, but be independent of State control and required to examine by visitation and report in detail the condition and wants of their respective districts to the Commissioner of Education. Such beneficent supervision by the Government if judiciously conducted would be felt to be beneficial to all interests, and would serve to draw the fellowship of the States into a closer union by invisible ties of gratitude and love. Or, if in any case prejudice, pride, or some fancied right should refuse to submit to an inspection designed to increase and perpetuate the blessings of liberty, it would furnish to the Government an opportunity to assert its paramount sovereignty in a case that would command the approval of mankind, which might be an incident little to be feared or regretted. It is best that the lines of power should be sharply drawn, and questions of jurisdiction set at rest by the court. We do not insist on mixed schools nor attempt to lay down the specific conditions on which public moneys shall be distributed for educational purposes; but we insist that it should be in accordance with the constitutional provision that "No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States."

I am not unaware that this scheme of national intervention in the educational interests of the country has been opposed on the plea that we cannot show any express power delegated to Congress to establish a system of schools in the States, and that consequently the power is reserved to and belongs only to the States. Our answer is that the objection is irrelevant, for we are not asking for the overthrow of State systems or the establishment of a national system. We are simply asking that Congress may go into the States and direct the expenditure of funds which, it is admitted, it has a right to appropriate for such purposes.

When Government appropriates public moneys, they should be disbursed by agents responsible to itself; but, if States have exclusive control of education, funds given for its advancement may be so diverted as to defeat the end in view. It has been done, and may be done again, without remedy.

But the right of such *supervision* is denied, on the allegation that it is not in the bond. I admit it is not in the letter; but I claim that it is the intrinsic life of the bond, without which it could not exist. If we are to deny to Congress all powers incidental to those expressed in the Constitution, we must abolish the Department of Agriculture and the *Coast Survey*, so essential to two of the great industries of the country shut up our Naval and Military Academies, and fold our arms in war and rebellion, and go to pieces for want of the constitutional power of self defence. Nay, one-third of the legislation of Congress is void, and the very charter of our liberties becomes a procrustean bed upon which the Republic is bound, and beyond which it can never hope to reach in all the progress of the ages.

We are told that "Federal education was not contemplated as necessary to 'establish justice, to insure domestic tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to the people.'" Such language in our country and at our time is marvellous. Without popular education popular governments have no right of existence and cannot be maintained when established. The Republic has as legitimate a right to protect itself against ignorance as against pestilence and rebellion. Education informs and quickens the inventive powers, by which improved methods and new forces are given to productive industry; it lifts the poor from the ranks of dependent labor into the fields of enterprise and responsibility, and surrounds them with the utilities and beauties of life; it opens to the intellect the realms of thought, and leads it through the galleries of art and science; it gives to the nation wealth for poverty, strength for weakness, and primacy for subordination; but not for one or all of these does the Republic open its treasury for the advancement of knowledge. It is solely as an act of self defence that the Government comes to the rescue of the schools. For this, if the proceeds of the sale of the public lands are insufficient, it has the right to pour out millions and dictate and control the method and the direction of their disbursement.

In this connection we should remember that the strongest defences of nations are not armies and navies, but the affections and patriotism of their citizens. A common pride in the achievements and a common faith in the character and destiny of the government are essential to its peace and perpetuity. Discordant creeds are the precursors of faction and dissolution. The schools are the nurseries of public sentiment, and should have but one curriculum of political philosophy and civil history. The past is admonitory of the future. To remove a cancer and leave its roots is not cure, but relief. The fatal hour is only delayed. In war he conquers whose principle survives the conflict of arms. If history is reversed, if treason and patriotism are transformed, if opposite theories of government are inculcated, and pride and shame interchanged in our sources of national thought, are we acting the part of a prudent regard for the welfare of posterity? Are we not holding a chalice of blood to the lips of our children, and is it playing the rôle of statesmen for our public men to shut their eyes and ignore such facts? Has our government no power to enforce, I do not say a uniformity of text books, but *the inculcation of a common national sentiment and political philosophy in the schools?*

I realize how difficult and delicate is the subject of which I speak, but it is legitimate to the occasion, and it would be cowardly to blink it out of sight. I cherish no feeling of sectionalism and would utter no word of crimination; but I am sure it is not wisdom to allow great dangers to drift us in silence into irretrievable ruin, when there is no real ground of difference of theory or action, but only pride and prejudice. The irreconcilable antagonism between free and slave labor, from which sprang the divergent theories and sectional bitterness of our old time politics, having perished with the war, there is nothing left but habits of thought and wounded pride to withhold us from mutual regard and a cordial coöperation in all that can advance the prosperity and glory of the country. Neither can deny to the other honesty of convictions or courage in battle, and this rescues the dead of both sections from dishonor. Why contend longer over obstructions and dead issues? Credit and trade, labor and skill, civil power and the social amenities, are all paralyzed by this persistent rancor of sectional jealousy, surviving its causes for a score of years. Our respective industries would be strengthened and made lucrative by mutual confidence and the fraternal emulations of business. Property would appreciate and resources develop, science be quickened and literature enriched, private virtue become more sacred and social happiness more universal, if we should give less time to the differentia of politics and more to the essentials of life. So long as opposing theories as to the nature and later history of the Government shall be taught in the different States, so long there will be bitterness and vituperation in the press, angry debates and disgraceful scenes in Congress, and portents of more direful disasters in the future.

But the cure must come from without. The Ethiopian cannot change his skin, nor an insane man reverse his thoughts. If reason and self interest have lost their control in the States, there must be a supreme power that holds and moves them in their orbits, if we are a nation, that can reach and remove the causes of discontent and peril.

The census reveals the fact that a large percentage of the illiterates of the country are of foreign birth. Emigration has become the policy of European states, as a relief to their institutions from the strain beneath. Our country has been made the field into which the ignorance, poverty, and hate of these revolutionary masses have been poured. Like pent-up gases they become harmless, for the most part, when the pressure is removed; but, crippled in capacity and with nothing to tax, they crowd under the protection of Federal law into the States and fill their schoolhouses with children. It is but right, therefore, that the enhanced burdens thus thrown upon the property of the States, if they do their duty to the children, and which in the aggregate amount to millions, should be relieved by national aid. There must be a rapid and constant decline in the intelligence, capacity, and character of our population, if these teeming millions are left uneducated and unassimilated.

We do not often stop to consider what changes have taken place since our gates were thrown open to the world. The influx of the overcrowded peoples East and West by the modern facilities of transportation could not be anticipated a century ago. This change necessitates corresponding changes in our internal policy. The schools must be multiplied and improved in methods and force, so as to keep pace with this drifting multitude, whose numbers outrun their means.

The failure to assimilate these millions, and bring them into full sympathy with our institutions and habits of thought, is already felt, especially in those great centres into which they have crowded in the largest numbers. It is not immigration or change we deprecate, but deterioration. The successive invasions of England were terrible visitations, but they poured fresh vigor and broader sentiments into the old Briton, from whose mixed blood has sprung the brawny liberty loving Englishman of history. With them there was a constant growth through their ages of battle. But our pauper immigrants are not Saxon or Norman invaders, and we fear a constant decline through our ages of trade. The children of these strangers within our gates must be made American in thrift and skill and in their political aspirations and pride; they must be lifted by knowledge above the control of party passion and be inspired with a personality that will not suffer them to be the tools of personal ambition; they must be made to apprehend the nature and genius of our institutions and to love the flag of the Republic as the symbol of freedom and power. Does the past justify us in the belief that the States will do all this? The age is characterized by broader views and quickened efforts in the cause of popular education. Governments have at last been forced to adopt it as the policy of success. Its power has been discovered in the productive force imparted to industry, in the triumphs of science, and in the achievements of war. Discoveries and inventions are the footsteps of its progress; it is recognized in the gift of the ballot and the subordination of leaders to the popular will; it is heard, not in the drum roll, but in the music of machinery; its growth is realized in the widened uses of literature and the utilities of art; lightning and steam are the contestants in its Olympiads, and it gathers its battle flags at Sedan.

While the statesmanship of Europe is pouring out millions in the rivalry of her systems of schools, shall we stand still to be swamped in the surf that rolls from her shores? To-day we are hardly abreast with England, France, and Prussia in the character and resources of our schools. And shall we be told that the Government must fold its arms with the shallow pretence of a want of power and leave this work exclusively to the States, which cannot realize or feel the responsibility of this magnificent competition of empires in the march of knowledge and the growth of mental power? The policy will be a cowardly and suicidal acknowledgment of impotency, and, if persisted in, we shall learn to our sorrow that an ignorant people is an inferior people in all the elements of national greatness. If the bill now pending before Congress is too narrow for either aid or incitement, let its gifts be enlarged to the measure of our wants. The nation is not impoverished when it gives to itself. Revenues so bestowed will be a profitable investment. It is but casting bread upon the waters that will be found after many days.

We should be glad to help build the waste places made desolate by war, if only hereafter they may be allowed to blossom with the fruits of an intelligent industry and social peace. The day is not distant, I trust, when both the North and South will learn that the rivalries of labor and trade and the emulations of literature and science are more profitable than the squabbles of politics or the feeding of old fires that ought to be dead. Let us unite in the noble enterprise of making our country foremost in the march of intelligence, foremost in the dignity of power, and foremost in the purity of its civilization.

The national domain is the common property of the Republic, and should be used to promote the general welfare. We can conceive of no employment of the proceeds of its sale of more general and lasting utility, and none more honorable to a free, christian people, than its application to the building up of a permanent system of free schools that shall be adequate to supply the demands of the future. This is an essential condition of national stability and prosperity. No subject of legislation more urgently demands a liberal appropriation than this. It will be an irreparable misfortune if, in a scheme so grand in its nature and so far reaching in its influence, we come to a deadlock over the puerile conceit that any material or moral interest can suffer from a concurrent but carefully defined advisory control of popular education by the General Government. In this the interests of the State and nation are one, and coöperation may bring them more closely together. Nothing is demanded which can limit or subvert any valuable prerogative of State power. Enlarged intelligence imparts a clearer apprehension of rights and an enhanced power to defend them. Armies and navies are defences against foreign aggression, but school-houses are the natural and effective security of governments against the domestic faction and violence that are engendered in the homes of ignorance.

The people are the sovereigns and citizens of both the State and the nation, and can claim the right to be fitted for their political functions from both. When the first is unable to discharge its trust, the latter should come to its aid in a peaceful coöperation. But when a State wilfully neglects to provide the means of knowledge for the poorest and humblest of its children, the supreme power of the nation possesses, beyond a reasonable doubt, the right to intervene in the interest of national intelligence, and provide, in such way and by such agents as Congress may judge best, for the education of the children of its neglected citizens. But we will not dwell upon this, for the question to-day before the American people is rather one of patriotism than one of right. The call is not to the defence of a prerogative, but to the discharge of an imperative duty. National inferiority and ultimate anarchy or despotism are the inevitable fruits of popular ignorance, that cannot discern the real interests or the conditions of safety and prosperity to the country. School-houses have done more for the German Empire than military academies for France or great universities for England. Industrial success, military power, political superiority, intellectual achievements, and national character, all have their springs in high popular intelligence. Our destiny as a republic and our place in the march of civilization are involved in the maintenance or failure of a system of free universal education.

The paper excited animated discussion, in which many of those present participated.

Dr. PHILBRICK referred to the interest which Presidents Grant and Hayes had manifested with respect to national aid for education, dwelt upon the favorable progress of public sentiment as shown in the attitude of Congress, and expressed his conviction that the time had come for urging the matter.

Mr. NORTHROP, of Connecticut, admitted that his views had changed within a few years, and he believed the present conditions of the country warranted national aid for the support of education.

Mr. NEWELL, of Maryland, deprecated any interference on the part of the General Government with the local management of school affairs, but was deeply impressed with the need of national aid, especially in the work of extending education through the South. While the southern people are anxious to educate their masses, the blacks as well as the whites, he knew that they are not able to bear the expense.

President ANDREWS, of Marietta College, dwelt upon the distinction between national aid and national control. He hoped that the Burnside bill would not pass in its present form, but that the States would receive help according to their illiteracy.

Mr. MOWRY, of Rhode Island, believed that the power and influence of the National Government should be exercised within proper limits in the interests of education, and he desired the passage of the Burnside bill as a measure of great public utility.

Mr. MARBLE announced that the hearing of the reports of the committees was in order.

Mr. SMART, chairman of the committee to memorialize Congress, said that the committee were not prepared to report yet.

It was voted to leave this matter to the further consideration of the committee, and it was authorized to attach the names of the members to the memorial.

The committee on the unification of school statistics was also continued.

By invitation FREDERICK A. TALCOTT, of the world's fair committee, addressed the meeting and presented the claims of the fair, asking the coöperation of the teachers in making a fine educational display. He was followed by Ex-Governor Crawford.

The following resolutions were adopted:

Resolved, That the members of the National Superintendents' Association, now assembled, have heard with pleasure the statements in regard to the forthcoming world's fair of 1883, which have just been made by the gentlemen representing the commission, and that in response thereto we hereby pledge our hearty support to this great enterprise. We pledge also our best endeavors to make an exhibition of our educational products at the fair which shall form one of its most interesting and profitable features.

Resolved further, That the executive committee of the United States international commission be hereby requested to place the educational exhibit of the world's fair of 1883 on an equality of rank with the other great sections of the exhibition, and that a separate department be created in which all the educational products exhibited by institutions, States, and nations may be placed.

Mr. WILSON, of Washington, chairman of the committee on resolutions, submitted the following resolutions, which were adopted:

Resolved, That the thanks of the Department of Superintendence of the National Educational Association are due and are hereby tendered to Superintendent N. A. Calkins and the friends of education of New York associated with him, for the admirable arrangements made for the present meeting and for the elegant and bountiful entertainment provided for the members on Wednesday evening.

Resolved, That the thanks of the department are due and are hereby tendered to the president of the College of the City of New York, the president of the Normal College, and the superintendent of the Museum of Natural History for cordial invitations to visit their respective institutions.

Resolved, That the thanks of the department are due and are hereby tendered to the proprietors of the Grand Central Hotel for the excellent accommodations afforded the members at special rates.

Dr. WICKERSHAM moved that the association reiterate its former opinion in regard to national aid to education. Carried.

Mr. MOWRY announced the next meeting of the American Institute of Instruction.

The department then adjourned sine die.